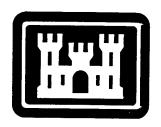
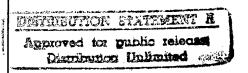
# UMCS FEASIBILITY STUDY

ATTACHMENT SECTIONS 8.1 & 8.2 A THRU D FOR

Fort George G. Meade





US Army Corps of Engineers

U.S. ARMY ENGINEER DISTRICT, BALTIMORE CORPS OF ENGINEERS BALTIMORE, MARYLAND

PERFORMED BY

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ENTECH ENGINEERING INC. READING, PENNSYLVANIA

AUGUST 1996

VOLUME 2 OF 3

#### DEPARTMENT OF THE ARMY

CONSTRUCTION ENGINEERING RESEARCH LABORATORIES, CORPS OF ENGINEERS
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### Acronym Table

A/C	Air Conditioning
AHU	Air Handling Unit
ВНР	Boiler Horse Power
BTU	British Thermal Unit
CHW	Chilled Water
DHW	Domestic Hot Water
DoD	Department of Defense
DPW	Department of Public Works
DX	Direct Expansion
ECIP	Energy Conservation Investment Program
ECO	Energy Conservation Opportunity
EEAP	Energy Engineering Analysis Program
EMCS	Energy Monitoring and Control System
EMS	Energy Management System
ESA	Energy Savings Analysis
gal	Gallon
HVAC	Heating, Ventilating, and Air Conditioning
HW	Hot Water
kW	Kilowatt
kWh	Kilowatt Hour
LCC	Life Cycle Cost
mcf	Thousand Cubic Feet
mmBTU	Million BTU
OA	Outside Air
SIOH	Savings, Inspection and Overhead
SIR	Savings to Investment Ratio
UMCS	Monitoring and Control System
VAV	Variable Air Volume

# ATTACHMENT SECTION 8.1 SCOPE OF SERVICES

- Entech Engineering, Inc. -

CESAM-EN-DM

17 April 1995 rev'd: 12 July 1995

UMCS FEASIBILITY STUDY
FORT MEADE, MARYLAND

GENERAL SCOPE OF WORK

FOR A

LIMITED ENERGY STUDY

Performed as part of the ENERGY ENGINEERING ANALYSIS PROGRAM (EEAP)

#### SCOPE OF WORK FOR A LIMITED ENERGY STUDY

#### UMCS FEASIBILITY STUDY, FORT MEADE, MD

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#### ANNEXES

- A DETAILED SCOPE OF WORK
- B BUILDINGS INCLUDED IN SURVEY
- C EXECUTIVE SUMMARY GUIDELINE
- D REQUIRED DD FORM 1391 DATA

- 1. <u>BRIEF DESCRIPTION OF WORK</u>: The Architect-Engineer (AE) shall:
- 1.1 Review for general information the available design, construction, and operation data for the existing Energy Monitoring and Control System (EMCS).
- 1.2 Perform a limited site survey of selected buildings or facilities to verify construction features, electrical and mechanical equipment, occupancy, and mode of operation for energy analysis.
- 1.3 Evaluate the technical and economic feasibility of replacing the existing EMCS with a new, distributed-process monitoring and control system (UMCS). The new UMCS would use personal computer (PC) based central operator stations and remote control units as appropriate in the buildings currently served by the existing EMCS.
- 1.4 Evaluate UMCS application programs (software) for all buildings or facilities using data from similar buildings to determine their energy savings potential and economic feasibility for connection to the new UMCS.
- 1.5 Provide project documentation for recommended ECOs as detailed herein.
- 1.6 Prepare a comprehensive report to document all work performed, the results and all recommendations.

#### 2. GENERAL

- 2.1 The existing Honeywell EMCS was originally installed in 19977. A software upgrade was performed five years ago; field hardware improvements were made in 1982. The existing EMCS is a standalone (monolithic) system. Over the years, mechanical and electrical equipment has become disconnected, losing monitor and control points. Purpose of this study is to evaluate replacement of the existing EMCS with a new, PC-based UMCS, and to evaluate adding new buildings to the UMCS. All buildings shall be prioritized according to simple payback and need.
- 2.2 The information and analysis outlined herein are considered to be minimum requirements for adequate performance of this study.
- 2.3 For the purposes of this scope of work, an Energy Conservation Opportunity (ECO) is defined as the application of one or more UMCS energy conservation programs (applications

software) within a particular building or facilty. A project is defined as the connection of one or more buildings/facilities to the UMCS or replacement of the existing EMCS.

- 2.4 The AE shall ensure that all ECO's which shall reduce the energy consumption or cost of operation of the installation have been considered and documented per the detailed scope of work. The ECO's are limited to the standard UEMCS applications listed in TM 5-815-2. A list of UMCS applications programs to be used when evaluating specific buildings or facilities is included in TM 5-815-2, "Energy Monitoring and Control Systems (EMCS)". Some of the applications programs listed in TM 5-815-2 may not be applicable to the specific building or facility being evaluated; in such cases, a statement to that effect is all that is required.
- 2.5 The study shall include the energy consuming buildings or facilities listed in Annex B. Field work and calculations may be reduced somewhat by building repetition.
- 2.6 Cost estimates for all UMCS hardware, software, data transmission media (DTM), testing and other required services shall be made using CEHND-SP-90-244-ED-ME, "Energy Monitoring and Control Systems (EMCS), Large and Medium Configurations, Cost Estimating Guidelines", modified to reflect current market conditions. Quotes from the manufacturer of the existing system will be acceptable.
- 2.7 The "Energy Conservation Investment Program (ECIP) Guidance", described in letter from DAIM-FDF-U, dated 10 Jan 1994 (including current updates) establishes criteria for ECIP projects and shall be used for performing the economic analyses of all ECOs and projects. The program, Life Cycle Cost In Design (LCCID), has been developed for performing life cycle cost calculations in accordance with ECIP guidelines and is referenced in the ECIP Guidance. If any program other than LCCID is proposed for life cycle cost analysis, it must use the mode of calculation specified in the ECIP Guidance. The output must be in the format of the ECIP LCCA summary sheet, and it must be submitted for approval to the Contracting Officer.
- 2.8 Computer modeling will be used to determine the energy savings of ECOs for typical buildings. The typical buildings are noted in Annex B. The results of these calculations may be applied to buildings which are similar to the typical buildings. This will be done by extrapolating on the basis of floor area. To be considered similar, a building must be essentially identical to the typical building in size, floor plan, mechanical equipment, type of construction, and

occupancy. If a building is identical to a typical building in all respects except the occupancy (e.g. a barracks converted into offices) the building should not be considered similar. In some cases, differences in physical orientation may not allow buildings to be considered similar; it is anticipated that in most cases, physical orientation will not be a significant factor. The requirement to use computer modeling applies only to heated and air-conditioned air-conditioned-only buildings which exceed 8,000 square feet or heated-only buildings in excess of 20,000 square feet. For buildings that are not covered by this requirement the AE may spreadsheet or manual calculations based on standardized energy savings calculations presented in Appendix C (CR82-030) of Naval Facilities Engineering Command document UG-0010, "User Guide for Single Building Controllers". Modeling will be done using a professionally recognized and proven computer program or programs that integrate architectural features with air-conditioning, heating, lighting and other energy-producing or consuming systems. These programs will be capable of simulating the features, systems, and thermal loads of the building under study. The program will established weather data files and may calculations on a true hour-by-hour basis or may condense the weather files and the number of calculations into several "typical" days per month. The Detailed Scope of Work, Annex A, lists programs that are acceptable to the Contracting Officer. If the AE desires to use a different program, it must be submitted for approval with a sample run, an explanation of all input and output data, and a summary of program methodology and energy evaluation capabilities. The AE shall model 19 different typical occupancy/HVAC combinations for the purpose of developing extrapolation constants. Energy savings will be extrapolated to similar systems using methods developed by the AE which use the equations from CR 82.030 and energy constants from modeling of typical systems. shall calculate building loss coefficients of 60 typical buildings and shall extrapolate the building loss coefficients to the remaining buildings based on occupancy type and floor area.

- 2.9 Energy conservation opportunities determined to be technically and economically feasible shall be developed into projects acceptable to installation personnel. This may involve combining similar ECOs into larger packages which will qualify for ECIP or FEMP funding, and determining in coordination with installation personnel the appropriate packaging and implementation approach for all feasible ECOs.
- 2.9.1 Projects which qualify for ECIP funding shall be identified, separately listed, and prioritized by the Savings to Investment Ratio (SIR).

- 2.9.2 All feasible non-ECIP projects shall be ranked in order of highest to lowest SIR.
- 2.9.3 At some installations Energy Conservation and Management (ECAM) funding will be used instead of ECIP funding. The criteria for each program is the same. The Director of Public Works will indicate which program is used at this installation. This Scope of Work mentions only ECIP, however, ECAM is also meant.
- 2.10 Metric Reporting Requirements: In this study, the analyses of the ECOs may be performed using English or Metric units as long as they are consistent throughout the report. The final results of energy savings for individual recommended projects and for the overall study will be reported in units of MegaBTU per year and in MegaWattHours per year. Paragraph 7.6.2 details requirements for the contents of the final submittal.

#### 3. PROJECT MANAGEMENT

- 3.1 Project Managers. The AE shall designate a project manager to serve as a point of contact and liaison for work required under this contract. Upon award of this contract, the individual shall be immediately designated in writing. The AE's designated project manager shall be approved by the Contracting Officer prior to commencement of work. This designated individual shall be responsible for coordination of work required under this contract. The Contracting Officer will designate a project manager to serve as the Government's point of contact and liaison for all work required under this contract. This individual will be the Government's representative.
- 3.2 <u>Installation Assistance</u>. The Commanding Officer or authorized representative at the installation will designate an individual to assist the AE in obtaining information and establishing contacts necessary to accomplish the work required under this contract. This individual will be the installation representative.
- 3.3 <u>Public Disclosures</u>. The AE shall make no public announcements or disclosures relative to information contained or developed in this contract, except as authorized by the Contracting Officer.
- 3.4 Meetings. Meetings will be scheduled whenever requested by the AE or the Contracting Officer for the resolution of questions or problems encountered in the performance of the work. The AE's project manager and the

Government's representative shall be required to attend and participate in all meetings pertinent to the work required under this contract as directed by the Contracting Officer. These meetings, if necessary, will be in addition to the presentation and review conferences.

3.5 <u>Site Visits, Inspections, and Investigations</u>. The AE shall visit and inspect/investigate the site of the project as necessary and required during the preparation and accomplishment of the work.

#### 3.6 Records

- 3.6.1 The AE shall provide a record of all significant conferences, meetings, discussions, verbal directions, telephone conversations, etc., with Government representative(s) relative to this contract in which the AE and/or designated representative(s) thereof participated. These records shall be dated and shall identify the contract number, and modification number if applicable, participating personnel, subject discussed and conclusions reached. The AE shall forward to the Contracting Officer within ten calendar days, a reproducible copy of the records.
- 3.6.2 The AE shall provide a record of requests for and/or receipt of Government-furnished material, data, documents, information, etc., which if not furnished in a timely manner, would significantly impair the normal progression of the work under this contract. The records shall be dated and shall identify the contract number and modification number, if applicable. The AE shall forward to the Contracting Officer within ten calendar days, a reproducible copy of the record of request or receipt of material.
- 3.7 <u>Interviews</u>. The AE and the Government's representative shall conduct entry and exit interviews with the Director of Public Works before starting work at the installation and after completion of the field work. The Government's representative shall schedule the interviews at least one week in advance.
- 3.7.1 Entry. The entry interview shall describe the intended procedures for the survey and shall be conducted prior to commencing work at the facility. As a minimum, the interview shall cover the following points:
  - a. Schedules.
- b. Names of energy analysts who will be conducting the site survey.

- c. Proposed working hours.
- d. Support requirements from the Director of Public Works.
- 3.7.2 Exit. The exit interview shall be held when the field work is essentially complete; it shall briefly describe the items surveyed and probable areas of energy conservation. The interview shall also solicit input and advice from the Director of Public Works.
- 4. <u>SERVICES AND MATERIALS</u>. All services, materials (except those specifically enumerated to be furnished by the Government), labor, supervision, and travel necessary to perform the work and render the data required under this contract are included in the lump sum price of the contract.
- 5. <u>PROJECT DOCUMENTATION</u>. All energy conservation opportunities which the AE has considered shall be included in one of the following categories and presented in the report as such:
- 5.1 ECIP Projects. To qualify as an ECIP project, an ECO, or several ECOs which have been combined, must have a construction cost estimate greater than \$300,000, a Savings to Investment Ratio (SIR) greater than 1.25 and a simple payback period of less than ten years. The overall project and each discrete part of the project shall have an SIR greater than 1.25. All projects meeting the above criteria shall be arranged as specified in paragraph 2.7.1 and shall be provided with programming documentation. Programming documentation shall consist of a DD Form 1391 and life cycle cost analysis (LCCA) summary sheet(s) (with necessary backup data to verify the numbers presented). A life cycle cost analysis summary sheet shall be developed for each ECO and for the overall project when more than one ECO are combined. The energy savings for projects consisting of multiple ECOs must take into account the synergistic effects of the individual ECOs.
- 5.2 Non-ECIP Projects. Projects which do not meet ECIP criteria with regard to cost estimate, but which have an SIR greater than 1.25 shall be documented. Projects or ECOs in this category shall be arranged as specified in paragraph 2.7.2 and shall be provided with the following documentation: the life cycle cost analysis (LCCA) summary sheet completely filled out, a description of the work to be accomplished, backup data for the LCCA (energy savings calculations and cost estimate), and the simple payback period. The energy savings for projects consisting of multiple ECOs must take into account the synergistic effects of the individual ECOs. In addition these projects shall have the necessary documentation prepared, as required by the Government's representative, for

one of the following categories:

- a. Federal Energy Management Program (FEMP) Projects. A FEMP (or O&M Energy) project is one that results in needed maintenance or repair to an existing facility, or replaces a failed or failing existing facility, and also results in energy savings. The criteria are similar to the criteria for ECIP projects, ie, SIR  $\geq 1.25$ , and simple payback period of less than ten years. Projects with a construction cost estimate up to \$300,000 shall be documented as outlined in par 5.2 above; projects over \$300,000 shall be documented on 1391s. In the FEMP program, a system may be defined as "failed or failing" if it is inefficient or technically obsolete. However, if this strategy is used to justify a proposed project, the equipment to be replaced must have been in use for at least three years.
- b. Low Cost/No Cost Projects. These are projects which the Director of Public Works (DPW) can perform using his resources. Documentation shall be as required by the DPW.
- 5.3 <u>Nonfeasible ECOs</u>. All ECOs which the AE has considered but which are not feasible, shall be documented in the report with reasons and justifications showing why they were rejected.
- 6. <u>DETAILED SCOPE OF WORK</u>. The Detailed Scope of Work is contained in Annex A.

#### 7. WORK TO BE ACCOMPLISHED.

- 7.1 Review Data for Existing EMCS. The AE shall review for general information the construction drawings and specifications and the manufacturer's drawings and operations and maintenance manuals for the existing EMCS. This review should acquaint the AE with the details of the hardware and software used in the existing system. Much of the information the AE may need to perform his evaluation will be contained in this data.
- 7.2 Perform a Limited Site Survey. The AE shall determine, based on the information provided by the installation, which buildings are "typical" and which are "similar" as defined in paragraph 2.8. A limited field survey of all buildings listed in the detailed scope of work shall be conducted to verify and/or adjust the list of "typical" and "similar" buildings. A detailed field investigation will then be made of all "typical" buildings using the outline provided in the detailed scope of work. The AE shall document his site survey on forms developed for the survey and submit these completed forms as part of the report. Testing is not required.

- Evaluate Selected ECOs. The AE shall analyze the ECOs identified in paragraphs 1.3 through 1.4. shall be analyzed in detail to determine their feasibility. Savings to Investment Ratios (SIRs) shall be determined using current ECIP guidance. The AE shall provide all data and calculations needed to support the recommended ECO. assumptions and engineering equations shall be clearly stated. Calculations shall be prepared showing how all numbers in the were figured. Calculations shall be an step-by-step progression from the first assumption to the final number. Descriptions of the products, manufacturers catalog cuts, pertinent drawings and sketches, and input/output summary sheets shall also be included. A life cycle cost analysis summary sheet shall be prepared for each ECO and included as part of the supporting data.
- 7.4 Combine ECOs Into Recommended Projects. During the Interim Review Conference, as outlined in paragraph 7.6.1, the AE will be advised of the DEH's preferred packaging of recommended ECOs into projects for implementation. Some projects may be a combination of several ECOs, and others may contain only one. These projects will be evaluated and arranged as outlined in paragraphs 5.1, 5.2, and 5.3. Energy savings calculations shall take into account the synergistic effects of multiple ECOs within a project and the effects of one project upon another. The results of this effort will be reported in the Pre-Final Submittal per par 7.6.2.
- 7.5 <u>Provide Programming or Implementation Documentation.</u> For projects or ECOs developed during this study, complete programming or implementation documentation shall be prepared by the AE.
- 7.5.1 Programming Documentation. For buildings or projects which meet ECIP criteria and which the installation wants to submit as an ECIP criteria, complete programming documentation shall be prepared. Complete programming documentation consists of the DD Form 1391 with supporting data. These forms shall be separate from the narrative report. They shall be bound similarly to the final report in a manner which will facilitate repeated assembly and disassembly. Forms shall also be provided on floppy disk in ASCII format; blank forms will be provided to the AE by the installation on floppy disk.
- 7.5.1.1 Military Construction Project Data (DD Form 1391). These documents shall be prepared in accordance with AR 415-15 and the supplemental requirements in Annex B. A complete DD Form 1391 shall be prepared for each project. The form shall include a statement that the project results from an EEAP study. Documents shall be complete as required for submission to higher DA headquarters. These programming

documents will require review and signatures by the proper installation personnel. All documents shall be complete except for required signatures. The installation shall batch the forms into the DD 1391 processor.

- 7.5.1.2 Implementation Documentation. For feasible projects or ECOs which do not meet ECIP criteria, implementation documentation shall be prepared. Each feasible project or ECO shall be individually packaged, documented, and included as a separate section in the volume containing the programming documentation. Each project or ECO shall have a complete description of the work to be done, economic justification, sketches, I/O summary sheets, and other backup data included as a section of the report. documentation required shall be as determined by the Government's representative. Documentation required will be in the categories listed in paragraph 5.2. For low cost/no cost (operational) projects which the Directorate of Public Works can perform, the following information shall be provided:
  - a. Brief description of the project;
  - b. Brief description of the reasons for the modification;
  - c. Specific instructions for performing the modification;
  - d. Estimated dollar and energy savings per year; and
- e. Estimated manhours and labor and material costs. Costs shall be calculated for the current calendar year and so marked. Manhours shall be listed by trade.

Separate sheets for each project showing the above information shall be prepared and included in the report.

7.6 <u>Submittals</u>, <u>Presentations</u> and <u>Reviews</u>. The work accomplished shall be fully documented by a comprehensive report. The report shall have a table of contents and shall Tabs and dividers shall clearly and distinctly be indexed. divide sections, subsections, and appendices. All pages shall be numbered. Names of the persons primarily responsible for the project shall be included. The AE shall give a formal presentation of the interim submittal to installation, command, and other Government personnel. Slides or view graphs showing the results of the study to date shall be used during the presentation. During the presentation, the personnel in attendance shall be given ample opportunity to ask questions and discuss any changes deemed necessary to the study. A review conference will be conducted the same day, following the presentation. Each comment presented at the review

conference will be discussed and resolved or action items assigned. The AE shall provide the comments from all reviewers and written notification of the action taken on each comment to all reviewing agencies within three weeks after the review meeting. It is anticipated that the presentation and review conference will require approximately one working day. The presentation and review conference will be at the installation on the date agreeable to the Director of Public Works, the AE and the Government's representative. The Contracting Officer may require a resubmittal of any document(s), if such document(s) are not approved because they are determined by the Contracting Officer to be inadequate for the intended purpose.

- Interim Submittal. An interim report shall be 7.6.1 submitted for review after the field survey has been completed and an analysis has been performed on all of the ECOs. report shall indicate the work which has been accomplished to date, illustrate the methods and justifications of the approaches taken and contain a plan of the work remaining to complete the study. I/O summary sheets and calculations showing energy and dollar dollar savings and SIRs of all ECOs/projects shall be included. A sample implementation document (DD Form 1391, sketches, manufacturer's data, I/O summary sheets, outline specifications, life cycle cost analysis summary sheet and supporting data) for one project will be submitted with this report. The simple payback period of all ECOs/projects shall be calculated and shown in the report. The results of the ECO analyses shall be summarized by lists as follows:
- a. All ECOs eliminated from consideration shall be grouped into one listing with reasons for their elimination as discussed in par 5.3.
- b. All ECOs which were analyzed shall be grouped into two listings, recommended and non-recommended, each arranged in order of descending SIR. These lists may be subdivided by building or area as appropriate for the study. The AE shall submit the Scope of Work and any modifications to the Scope of Work as an appendix to the report. A narrative summary describing the work and results to date shall be a part of this submittal. At the Interim Submittal and Review Conference, the Government's and AE's representatives shall coordinate with the Director of Public Works to provide the AE with direction for packaging or combining ECOs for programming purposes and also indicate the fiscal year for which the programming or implementation documentation shall be prepared. The survey forms completed during this audit shall be submitted with this report. The survey forms only may be submitted in final form with this submittal. They should be clearly marked at the time of submission that they are to be

retained. They shall be bound in a standard three-ring binder which will allow repeated disassembly and reassembly of the material contained within.

- 7.6.2 Pre-Final Submittal. The AE shall prepare and submit the Pre-Final report when all sections of the report are complete.
- 7.6.3 Final Submittal. The AE shall prepare and submit the final report when all sections of the report are 100% complete and all comments from the interim submittal have been resolved. The AE shall submit the Scope of Work for the study and any modifications to the Scope of Work as an appendix to the submittal. The report shall contain a narrative summary of conclusions and recommendations, together with all raw and supporting data, methods used, and sources of information. The report shall integrate all aspects of the study. recommended projects, as determined in accordance with paragraph 5, shall be presented in order of priority by SIR. The lists of ECOs specified in paragraph 7.6.1 shall also be included for continuity. The final report and all appendices shall be bound in standard three-ring binders which will allow repeated disassembly and reassembly. The final report shall be arranged to include:
- a. An Executive Summary to give a brief overview of what was accomplished and the results of this study using graphs, tables and charts as much as possible (See Annex B for minimum requirements).
- b. The narrative report describing the problem to be studied, the approach to be used, and the results of this study.
- c. Documentation for the recommended projects (includes LCCA Summary Sheets).
  - d. Appendices to include as a minimum:
  - 1) Energy cost development and backup data
  - 2) Detailed calculations
  - Cost estimates
  - 4) Computer printouts (where applicable)
  - 5) Scope of Work

#### ANNEX A

# ARCHITECT-ENGINEER SERVICES FOR ENERGY MONITORING AND CONTROL SYSTEM AT FORT MEADE, MARYLAND DETAILED SCOPE OF WORK

- 1. GENERAL The AE shall furnish all services, materials, supplies, labor, equipment, investigations, studies, and travel as required in connection with the feasibility study for replacement of an EMCS at Fort Meade, MD. The study generally consists of investigating the economic and technical feasibility of making necessary modifications to connect existing buildings and facilities to a new UMCS, and replacing the existing EMCS with a distributed-process UMCS with sufficient capacity to accommodate future expansion. The buildings and facilities to be included are listed at Annex B of this statement of work.
- 2. <u>AUTHORIZATION</u> The feasibility study for this project is authorized by memorandum, CEMP-ET, subject: "Energy Engineering Analysis Program (EEAP) FY95", dated 29 December 1994. The AE shall make reference to this authority in the study.
- 3. <u>STUDY INSTRUCTIONS</u> If the Design Manuals, Guide Specifications, and/or Project Engineering Instructions do not cover a specific condition in question, the AE shall contact the Contracting Officer before proceeding. If there is a conflict in Engineering Instructions or other reference data, such questions or conflicts should be brought to the attention of the Contracting Officer before proceeding.
- 4. <u>INSTALLATION REPRESENTATIVE</u> The Installation Representative for this study will be Mr. Richard Styles, Directorate of Public Works, (301) 677-9256.
- 5. <u>COMPLETION AND PAYMENT SCHEDULE</u> The following schedule shall be used as a guide in approving payments on this contract. The interim report shall be due not later than 180 days after the Authorized Receipt of Order (ARO). The Pre-Final report shall be due not later than 30 days after the interim report review conference. The Final report shall be due not later than 21 days after the Pre-Final review conference.

	૪	OF	CON'	TRAC:	r amount
MILESTONE	AUT	HOR	ZED	FOR	PAYMENT
Entry Interview					10
Completion of Field Work					25
Receipt of Interim Submittal					75
Completion of Interim Presentation	& Re	view	7		85
Completion of Pre-Final					95

#### 6. METHOD OF PAYMENT

- a. Title I. The AE shall prepare and submit to the US Army Engineer District, Baltimore, MD, partial payment estimates on ENG Form 93. All partial payments shall be based on work completed as of the 15th day of the reporting month and shall be submitted to the office of the Contracting Officer by the 18th day of the month. Copy of the ENG Form 93 should be provided to the Project Manager. Payment under this order, for which property or services are provided in a series of partial executions or deliveries, will be made within 30 days after receipt of an invoice which has been properly executed by the AE.
- b. Additional Conferences. Payments for furnishing the services of technically qualified representatives to attend additional conferences, when so requested in writing by the Contracting Officer, will be made at a rate per hour for the discipline involved plus travel expenses computed in accordance with the Joint Travel Regulations in effect at the time travel is performed and actual cost of transportation.
- 7. <u>SIMULATION PROGRAMS</u> Simulation programs acceptable for use in this study are listed below. Any substitue must be submitted and approved as outlined in the basic statement of work.
  - a. Building Loads and System Thermodynamics (BLAST)
  - b. DOE 2.1D
  - c. Carrier Hourly Analyis Program (HAP)
  - d. Trane Air-Conditioning Economics (TRACE)
- 8. <u>COMPUTER PROGRAM</u> A computer program entitled "Life Cycle Costing in Design (LCCID)" is available from the BLAST Support Office in Urbana, Illinois for a nominal fee. This computer program can be used for performing the economic calculations for ECIP and non-ECIP ECOs. The AE is encouraged to obtain and use this computer program. The BLAST Support Office can be contacted at 144 Mechanical Engineering Building, 1206 West Green Street, Urbana, Illinois 61801. The telephone number is

(217) 333-3977 or (800) 842-5278.

#### 9. FACILITY SURVEY

The Architect-Engineer (AE) shall conduct a survey of the buildings and building systems listed by Annex B in accordance with TM 5-815-2 and as described herein. Each building/system shall be observed while in operation. The AE shall coordinate with the DPW POC for entry into the facilities, to include weekends or after regular business hours. The survey shall include and document the following items:

- a. Verification of as-builts, occupancy schedules, and equipment listing to the extent applicable for incorporation in the EMCS. Verification shall include recording of equipment data for which documentation was not provided but is appropriate for incorporation in the proposed EMCS.
- b. Nameplate information such as manufacturer, horsepower, voltage, current and other required data shall be recorded for each piece of equipment to be included in the system.
- c. Obtain information for each existing utility meter to be monitored by the EMCS including manufacturer and model number. The A-E shall determine EMCS interface requirements. Metering for reimbursable customers, as designated by the DPW, shall be included in this scope of work.
- d. Preliminary routing and costs for the data transmission media (DTM) between buildings and facilities shall be indicated.
- 'e. The AE shall note any discrepancies for buildings or facilities from the as-built drawings during field investigation. Any suspected asbestos or lead paint locations shall also be noted by the AE. Sampling, testing and abatement are not included in this statement of work.
- f. Sketches of the installation of EMCS instrumentation and control devices. Sketches shall include location of the Master Control Room (MCR). Location shall be coordinated with facility operating personnel. Need for intercommunications between the MCR and other offices or installation personnel shall be addressed as part of the electrical cost. Cost for 24-hour environmental conditioning of the MCR shall be included.

#### 10. GOVERNMENT-FURNISHED DATA

a. TM 5-815-2, "Energy Monitoring & Control Systems
(EMCS)"

- b. AR 415-15, "Army Military Construction Program Development and Execution"
  - c. AR 415-17, "Cost Estimating for Military Programming"
  - d. TM 5-785, "Engineering Weather Data"
  - e. "Architectural and Engineering Instructions (AEI)"
  - f. "EMCS Guide Specifications
- (1) CEGS 13810 Energy Monitoring and Control System (EMCS) Large Configuration
- (2) CEGS 13814 Building Preparation for Energy Monitoring and Control Systems
- (3) CEGS 13945 Multi-Building Expansion of Energy Monitoring and Control Systems
- g. "User Guide for Single Building Controllers", UG-
- h. "EMCS Cost Estimating Guidelines" CEHND-SP-90-ED-ME (revised)
- i. Previous studies, design, construction, and operation data from existing EMCS.
  - j. Most recent Tri-Service Cost Index.
- k. DAIM-FDF-U letter dated 10 January 1994, "Energy Conservation Investment Program (ECIP) Guidance"
  - 1. Building Information Schedule

#### 12. SUBMITTAL DISTRIBUTION

ORGANIZATION	CORRESPONDENCE	INTERIM & PRE-FINAL	FINAL
Commander U.S. Army Garrison, F ATTN: ANME-PWP (Mr. S Building 219 Fort Meade, MD 20755-	Styles)	(3)	(3)
Commander U.S. Army Engineer Di ATTN: CENAB-EN-MP (Mr P.O. Box 1715 Baltimore, MD 21203-1	Gross)	(3)	(3)

Commander U.S. Army Engineer District, Mobil ATTN: CESAM-EN-DM (Mr. Battaglia) P.O. Box 2288 Mobile, AL 36628-1000	(1) (1) Le	(1)
Commander U.S. Army Engineer Division, Hunts ATTN: HNDED-ME (Mr. Holland) P.O. Box 1600, West Station Huntsville, AL 35807	(1) (3) sville	(1)
Commander Fort Lesley J. McNair ATTN: Mr. Ralph Gibson Building 42, Code ANEN-IS Washington, DC 20319-5050 ATTN: Mr. Gibson	(1)	(1)
Commander U.S. Army Corps of Engineers ATTN: CEMP-ET (Mr. Gentil) 20 Massachusetts Avenue, NW Washington, D.C. 20314-1000		(1)*
Commander U.S. Army Logistics Evaluation Age ATTN: LOEA-PL (Mr. Keath) New Cumberland Army Depot New Cumberland, PA 17070-5007	ncy	(1)*

 $\star \texttt{Copy}$  of the Final executive summary only.

#### ANNEX B

#### BUILDINGS INCLUDED IN SURVEY

- 1. Buildings on Existing EMCS
- 2. Buildings to Be Added to EMCS

	Car Sada	Blag No.	Cescription	inalv. 3kg Q8F	Envetope	DecarRooring	Comments
1	72111	3828	IUEPH	1 28393	i Blocx	MetavRoll	
1	61050	4550	Administrative	122400	: Brick	Contrate/Buil Us	3 :
<b>√</b> 1	74021	2786	Cammiseary	118000	Brick	Mejai/Memorane	, '
, 1	72111	3801	:UEPH: 9802.9803.9804	30550			Four Similer Buildings
1	74C53	2790	Main Emange, Retail	78343		Messi Buit Us	1
1	72111		MESH .	68061		Metal/Built Up	<u> </u>
1			Administrative	43547		Metal/Built Up	
1			Physical Piness Canter	41900		Concrete/Built Up	
1	72111		IUEPH: 9479,8544,8545,3905,8608,8607				
	<u> </u>		8609.8610,8611		Blocx		Ten Similar Buildings
4	7302C		Chapel Canter Facility	30503	Brick	Wood/Shingle/Rat	
1	74088	3452	Rec. Center	274481	Blocx	Wood/Buik Up	
1	81050		Administrative	25162	Brick	i Wood/Buil Up	
1	74098	909	Youth Center	23000	<b>Brick</b>	Metai/Metai	1
1	72111	2481	UEPH	17438	ĉiccx	Concrete/Built Up	
1	21920	3000	FE Facility	10883	Block	Wood/Built Up	
1	730731		Peat Office	8988	Brick	Metav@uiit Up	
1			Administrative	8120:		. Metai/Metai	
1			Heat Plant	7713			<del></del>
1					Blocx	T Concrete Built Up	
+			Heat Plant	3554	Metal	Mensi/Metsi	
	82116		Heat Plant	3414.	<u> </u>	MerayBuilt Up	i i
2	810501		Auministrative	103938	Enex	Wccd/Shindle	2 - 2
2	\$1C5C:		Administrative	95730	ZONE.	Wood/Shings	
2	61050		Administrative	74059	Brex	eignid/boow	
2	61050		Administrative 1	57824	Brick	Wood/Shingta	
2	61050	2257	Administrative I	51712.	3kcx	Wood/Shingle	
2	<b>3105</b> 01	3411	Administrative	39379	Brick	Wcod/Shingle	
2	81050.	42161	Acministrative	37244	Brak	Wood/Shira:a	3/5/9
2:	17115		Band Training Facility	36613	Wood	Wood/Rcii	7001
2	81CEC:		Aciministrative	34548	Brick	Wood/Shrqia	
2	53020		Laboratory	34144	Block	Concrete/Built Up	
2	724101		Officers Ortrs, Incl. 4707,4709				There (1) - 3 - 1/-1 -
2	74043			24850.	3locx		Three Similar Buildings
2			Coen Dining, Officer	23552	Briex	Metai/Built Us	
	74088		Rec. Canter	22287	Blocx	Metal/Suit Up	
2	740471		Cean Cining, NCO	19533	Block	Wood/Bu≋t Us	
2 :	51CEC:	· · · · · · · · · · · · · · · · · · ·	Administrative	18640	Block	Concrete/Built Up	
2	74022	- 6830 is	Skill Development Canter	18300	3locx	MetauBuit Up	
2	44225	2484	Medical Supply Warehouse	18185	Metal	Metal/Metal	
2 .	722101	982918	Inlisted Personal Dining	16905	Block	Metal/Metal	
2	724101		Officers Citre, Incl. 4704,4717,4720,4721	14873:	Brick		Five Similar Buildings
2 :	810501		Administrative	13614	Sticx		LIVE DAILING DAILING DAIL
2	74030		Saf Clushouse			Wood/Shingle	
2	44220!		Varehouse	128001	Brick	Wood/Shingle	
2	21210			117241	Block	Metal/Built Up	
2	740581		Builded Missale Maintenance Fedility	11520:	Block	Metal/Buit Up	
2			xhange Service Outlet	11440:	Block	Wood/Shingle	
	61050		dministrative	10368	Block	Wood/Rai	
2	73017		ost chapai	10290	Brick	Wood/Shingle	
2	540101		Cental Clinic	100001	Block	Wood/Built Up	374,247
2	73017		rost Chapel	9587	3lcck	Wood/Buit Up	
2	74041	4418IL	brary	7953	3lock	Gypsum/Shingle	
2	74023	4471 A	CAP/Credit Union	7248	Block	Wood/Shingle	
2	74078	4431 T	heater w/ Drassing Room	5812!	Brick	Wood/Shingle	
2	214101		RG Vehicle Maintanance Shos	4864	Blesk	Wood/Roll	
2 !	2141C		RG Vehicle Maintenance Shop	4864	Block !		
2	74052		xchange Service Station	41741		Wood/Roll	
2					Block	Wood/Built Up	
	14123		attailon Headquarters Building	35041		Gycsum/Buit Co	
2	14133		atalicn Heedquartse Building	3344;	Block (	Cancrete/Built Up	
2	74C56		consings Service Cutet	17101			

148 784

_						
<u>-</u>	74085	340 Morain Support office	317201	Wood	Wood/Shings	
3	740001	2793 Guest Housing	28245	Concrete	Wood/Shingle	
3	610801	2282 Administrative R&D	227981	Wood	Gypsum/Euit Up	
3	171601	504 Training Aldia Certiff	20580	<b>'Noos</b>	Woodshings	
3	214201	2253 DS Vericle Maintenance Shop	189121	Socit	Wood/Shingle	
13	5105DI	2501 Administrative	14754	Wood	Wood/Shingtee	
3	610301	2212 Administrative	90581	Wood	Wood/Shingles	
3 1	610501	2812 (Administrative	47201	Wood	Wood/Shingle	

65 buildings 148,784

# ATTACHMENT SECTION 8.2 BUILDING ENVELOPE, EQUIPMENT SCHEDULE, PHOTOGRAPHS AND ESA/EZDOE OUTPUT

Entech Engineering, Inc. -

# ATTACHMENT SECTION 8.2A BUILDINGS 370 TO 2490

Entech Engineering, Inc. —

## FT. MEADE, MARYLAND

Building:

370

Square feet 19,583

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Stucco	0.20
12" Conc. Block	2.48
Inside Surface	0.68
Total R-Value	3.53
Total U-Value	0.28

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Asphalt Shingles	0.21
1-1/2" Gypsum Sheathing	1.12
Air Space	0.98
1/2" Gyp. Board Ceiling	0.45
Inside Surface	0.61
Total R-Value	3.54
Total U-Value	0.28

Calculated Total Area		
No. of Floors	1	
Avg. Floor to Floor Height	15	
No. of Basement Levels	0	
Gross Floor Area	19583	
Roof Area	11410	
Estimated Infiltration (cfm)	2000	
Gross Wall Area	4692	
Door Area	126	
Gross Window Area	906	
Other		
Net Wall Area	3660	

Window and Door		
	U-Value	
Window Single Pane W/Storm		
Window Single Pane Wo/Storm		
Window Double Pane	0.55	
Skylight		
Glass Block		
Other		
Door Type 1	1.00	
Door Type 2		
Door Type 3		

UoAo = (3660\*0.28) + (11410\*0.28) + (126\*1.0) + (906\*0.55) = 4844

# FT. MEADE, MARYLAND **EQUIPMENT SCHEDULE**

Page 1 of 1

**BUILDING NO. 370** 

ω (4) Oil (5) Electric (4) Furnace Type of Heating Heating Source DX COND. 6 (3) Steam to Hot Water Converter BOILER (2) Central Plant Steam (3) Central Plant Hot Water 2520 SYSTEM NUMBER a 1) Boiler Hot Water (2) Boiler Steam (1) Natural Gas AHU-4 8,000 6,150 20% 2 4  $\sim$ AHU-3 2,590 20% 2 (5) Constant Volume Reheat AHU-2 2,720 3,000 (6) Heating and Ventilating 20% (5) Central Plant Supplied ~ (4) Water Cooled Chiller (4) VAV w/ Reheat Type of Cooling AHU-1 8,000 6,500 20% Ŋ (6) Other N Air Side Operating Schedule Hrs. Week **Tower or Condenser Fan HP** EQUIPMENT Chilled Water Pump HP Condensate Pump HP Condenser Pump HP Hot Water Pump HP (2) Water Cooled DX ocation in Building Air Cooled Chiller Equipment Name 1) Air Cooled DX Chiller Tonnage Aux. HP Cooling Aux. HP Heating ype of Heating Type of Cooling Supply Fan HP O.A. CFM or % Return Fan HP 1) Single Zone ADDITIONAL: Area Sq. Feet (2) Multi-Zone Supply CFM Return CFM COOLING: HEATING: Air Side MBTUH (3) VAV Source

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#### EMCS Annual Energy Savings Summary Report

Base: FTMEADE

Building: 370 Case: 1

Description:

Fuel Type: Natural gas (methane)

Heating Value: 1,031 Btu/cf

#### Caution

The ESA program makes no attempt to exclude incompatible strategies.

It is the user's responsibility to select all appropriate strategies.

#### Annual Energy Savings Table for Single Zone AHU

Description: AHU-1				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Vent/Recirculation Run Time Recording Safety Alarm	119.081 12.697 0.000 0.000	387 0 0 0	0.0 0.0 0.0 0.0	0 0 2 2
Subtotals Heating Value /	131.779 1,031	387 Btu/cf	0.0	4
Totals	127,816 cf /yr	387 kWh/yr	0.0 kW	######################################

370.SM1

Annual Energy Savings Table for Single Zone AHU

Description: AHU-2				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Vent/Recirculation Run Time Recording Safety Alarm	49.831 4.761 0.000 0.000	162 0 0 0	0.0 0.0 0.0 0.0	0 0 2 2
Subtotals Heating Value /	54.592 1,031	162 Btu/cf	0.0	4
Totals	52,951 cf /yr	162 kWh/yr	0.0 kw	4 mh/yr

Annual Energy Savings Table for Single Zone AHU

Description: AHU-3				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Vent/Recirculation Run Time Recording Safety Alarm	47.449 3.968 0.000 0.000	154 0 0 0	0.0 0.0 0.0 0.0	0 0 2 2
Subtotals Heating Value /	51.417 1,031	154 Btu/cf	0.0	4
Totals	49,871 cf /yr	154 kWh/yr	0.0 kW	 4 mh/yr

Annual Energy Savings Table for Single Zone AHU

Description: AHU-4			•=========	=====\
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Vent/Recirculation Run Time Recording Safety Alarm	112.669 12.697 0.000 0.000	366 0 0 0	0.0 0.0 0.0 0.0	0 0 2 2
Subtotals Heating Value /	125.366 1,031	366 Btu/cf	0.0	4
Totals	121,597 cf /yr	366 kWh/yr	0.0 kW	######################################

Annual Energy Savings Table for Air Cooled DX Compressor

/=====================================			=======================================	======
Strategy	MBtu/yr	kWh/yr	**************************************	mh/yr
Scheduled Start/Stop Demand Limiting Run Time Recording Safety Alarm	0.000	6,279	0.0	0
	0.000	0	2.4	0
	0.000	0	0.0	2
	0.000	0	0.0	2
Totals	0.000	6,279	2.4	4
	MBtu/yr	kWh/yr	kW	mh/yr

EMCS Annual Energy Savings for Building 370

/======================================	=======================================	=======================================
Description	Value	Units
	=======================================	===============
Natural gas (methane)	352,235	cf /yr
Electrical Energy	7,349	kWh/yr
Electrical Demand Reduction	2.4	kW
Labor Savings	20	mh/yr
\_=====================================		/

### FT. MEADE, MARYLAND

Building:

375

Square	feet	8,120
Oquaic	1001	0, 120

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Metal Siding	0.00
3" Insulation	8.00
Gyp Board	0.56
Inside Surface	0.68
Total R-Value	9.41
Total U-Value	0.11

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Metal Roof	0.00
3" Insulation	11.00
Air Space	1.10
Acoustical Tile	1.89
Inside Surface	0.61
Total R-Value	14.77
Total U-Value	0.07

Calculated Total Area	
No. of Floors	1
Avg. Floor to Floor Height	16
No. of Basement Levels	
Gross Floor Area	8120
Roof Area	8120
Estimated Infiltration (cfm)	1000
Gross Wall Area	7680
Door Area	1000
Gross Window Area	300
Other	
Net Wall Area	6380

Window and Door	
	U-Value
Window Single Pane W/Storm	
Window Single Pane Wo/Storm	1.00
Window Double Pane	
Skylight	
Glass Block	
Other	
Door Type 1	1.00
Door Type 2	
Door Type 3	

UoAo = (6380\*0.11) + (8120\*0.07) +,(300\*1.0) + (1000\*1.0) = 2570.2

### FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

**BUILDING NO. 375** 

Page 1 of 1

EQUIPMENT				SYSTEM NUMBER	UMBER			
	-	2	3	4	2	9	7	8
Equipment Name	Furnace	A/C Unit						
COOLING:								
Type of Cooling		-						
Air Side								
Location in Building		Mail Room						
Area Sq. Feet		3200						
Supply CFM	5460	3200						
Supply Fan HP	2	1 1/2						
O.A. CFM or %		%0						
Return CFM								
Return Fan HP								
Chiller Tonnage		7 1/2						
Tower or Condenser Fan HP								
Condenser Pump HP								
Chilled Water Pump HP								
HEATING:								
Type of Heating	4							
Source	-							
МВТОН	375/300							
Hot Water Pump HP								
Condensate Pump HP								
ADDITIONAL:								
Aux. HP Cooling			!					
Aux. HP Heating								
Operating Schedule Hrs./Week								
Type	Type of Cooling		$\parallel$	_		Type of Heating		
(1) Air Cooled DX	(4) Water Cooled Chiller	Chiller	(1	(1) Boiler Hot Water		) o or realing	S Constant	
(2) Water Cooled DX	(5) Central Plant	Supplied	(2	(2) Boiler Steam	5	-	(4) i dillace	
(3) Air Cooled Chiller	(6) Other		<u>(S)</u>	(3) Steam to Hot Water Converter	Vater Converter			
Ai	Air Side				무	Heating Source	do	
(1) Single Zone	(4) VAV w/ Reheat	at	<u> </u>	(1) Natural Gas			(4) Oil	
-Zone	(5) Constant Volume Reheat	ume Reheat	(2)	(2) Central Plant Steam	team		(5) Electric	
(3) VAV	(6) Heating and	Ventilating	(3)	(3) Central Plant Hot Water	ot Water	-		
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G:PROJECTSW130.07\SS\375\EQUIPMNT\WK4

9 Jan 1996 10:53:50

### EMCS Annual Energy Savings Summary Report

Base: FTMEADE
Building: 375
Case: 1

Description: MAIL ROOM AND WAREHOUSE

Fuel Type: Natural gas (methane)

Heating Value: 1,031 Btu/cf

### Caution

The ESA program makes no attempt to exclude incompatible strategies.

It is the user's responsibility to select all appropriate strategies.

### Annual Energy Savings Table for Single Zone DX-A/C

Description: OFFICE A/C UNIT MBtu/yr kWh/yr kW mh/yr Strategy \_\_\_\_\_\_\_ Scheduled Start/Stop 0.000 622 0.0 Run Time Recording 0.000 0 0.0 Safety Alarm 0.000 Totals 0.000 622 0.0 4 kWh/yr MBtu/yr kW mh/yr 

### Annual Energy Savings Table for Direct Fired Furnace

Description: BLDG H&V FORCEI	) AIR FURNA	ACE		
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Run Time Recording Safety Alarm	81.600 0.000 0.000	0 0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	81.600 1,031	0 Btu/cf	0.0	4
Totals	79,146 cf /yr	0 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Lighting Control

Description: BLDG LIGHTING				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Lighting Control	0.000	6,864	0.0	0
Totals	0.000 MBtu/yr	6,864 kWh/yr	0.0 kW	0 mh/yr

EMCS Annual Energy Savings for Building 375

Description	Value	Units
Natural gas (methane) Electrical Energy Electrical Demand Reduction Labor Savings	79,146 7,486 0.0	cf /yr kWh/yr kW mh/yr
Labor Savings \	8 =============	mh/yr 

### FT. MEADE, MARYLAND

Building:

393

Square feet 10440

Exterior Wall	
Components	R-Value
Outside Surface	0.17
8" CMU	1.04
2" Air Space	0.98
3/8" Sheetrock	0.32
1/4" Wall Board	0.06
Inside Surface	0.68
	<del></del>
Total R-Value	3.25
Total U-Value	0.31

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Built-up Roofing	0.33
Wood Deck	0.93
12" Air Space	0.98
Acoustical Tile Ceiling	1.89
Inside Surface	0.61
Total R-Value	4.91
Total U-Value	0.20

Calculated Total Area	
No. of Floors	1
Avg. Floor to Floor Height	11.5
No. of Basement Levels	0
Gross Floor Area	10440
Roof Area	10440
Estimated Infiltration (cfm)	1400
Gross Wall Area	5208
Door Area	126
Gross Window Area	768
Other	
Net Wall Area	4314

Window and Door	
	U-Value
Window Single Pane W/Storm	0.60
Window Single Pane Wo/Storm	
Window Double Pane	
Skylight	
Glass Block	
Other	
Door Type 1	1.00
Door Type 2	
Door Type 3	

UoAo = (4314\*0.31) + (10440\*0.2) + (126\*1.0) + (768\*0.6) = 4012

## FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

**BUILDING NO. 393** 

Page 1 of 1

EOUIPMENT				SYSTEM NUMBER	MBER			
	-	2	က	4	5	9	7	8
Equipment Name	Furnace	DX Cond						
COOLING:								
Type of Cooling	-	1						
Air Side	_							
Location in Building								
Area Sq. Feet	10440							
Supply CFM	12000							
Supply Fan HP	5							
O.A. CFM or %	4500							
Return CFM								
Return Fan HP								
Chiller Tonnage		46						
Tower or Condenser Fan HP								
Condenser Pump HP								
Chilled Water Pump HP								
HEATING:			-					
Type of Heating	4							
Source	_							
МВТИН								
Hot Water Pump HP								
Condensate Pump HP								
ADDITIONAL:								
Aux. HP Cooling								
Aux. HP Heating								
Operating Schedule Hrs./Week								
	Type of Cooling					Type of Heating	50	
(1) Air Cooled DX	(4) Water Cooled Chiller	d Chiller		(1) Boiler Hot Water	_		(4) Furnace	
(2) Water Cooled DX	(5) Central Plant Supplied	t Supplied		(2) Boiler Steam				
(3) Air Cooled Chiller	(6) Other			(3) Steam to Hot Water Converter	ater Converter			
	Air Side				He	Heating Source	Ð	
(1) Single Zone	(4) VAV w/ Reheat	eat		(1) Natural Gas			(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	lume Reheat		(2) Central Plant Steam	eam		(5) Electric	
(3) VAV	(6) Heating and Ventilating	Ventilating		(3) Central Plant Hot Water	ot Water			
G:PROJECTSM130.07\SS\393\EQUIPMNT.WK4								

G:PROJECTSW130.07\SS\393\EQUIPMNT.WK4

EMCS Annual Energy Savings Summary Report

Case: 1
Description:

Fuel Type: Natural gas (methane) Heating Value: 1,031 Btu/cf

### Caution

Annual Energy Savings Table for Single Zone AHU

Description: F-1				=====
Strategy ====================================	MBtu/yr	kWh/yr	======= kW	===== mh/yr
Day/Night Setback Vent/Recirculation Run Time Recording Safety Alarm	282.955 48.249 0.000 0.000	919 0 0 0 0	0.0 0.0 0.0 0.0	====== 0 0 2 2
Subtotals Heating Value /	331.204	919 Btu/cf	0.0	 4
Totals	321,245 cf /yr	======================================	 0.0 kW	===== 4 mh/yr

Annual Energy Savings Table for Air Cooled DX Compressor

Description: C-1		=======================================	=======	=====
Strategy	MBtu/yr	======================================	======= kW	===== mh/yr
Scheduled Start/Stop Optimum Start/Stop Duty Cycling Demand Limiting Run Time Recording Safety Alarm	0.000 0.000 0.000 0.000 0.000 0.000	3,434 0 2,328 0 0 0	0.0 0.0 0.0 0.7 0.0	0 0 0 0 2 2
Totals	0.000 MBtu/yr ========	5,762 kWh/yr	0.7 kW	===== 4 mh/yr

Annual Energy Savings Table for Lighting Control

Description: Lighting		=======================================	=======	======
Strategy	-======= MBtu/yr 	kWh/yr	======= kW	====== mh/yr
Lighting Control	0.000	52,416	0.0	====== 0
Totals	0.000 MBtu/yr	52,416 kWh/yr	======= 0.0 kW	====== 0 mh/yr
		=======================================	=======	======

EMCS Annual Energy Savings for Building 393

Description	Value	========\ Units
Natural gas (methane) Electrical Energy Electrical Demand Reduction Labor Savings	321,245 59,097 0.7 8	cf /yr cf /yr kWh/yr kW mh/yr

### FT. MEADE, MARYLAND

Building:

504

alue	
0.17	
0.44	
6.00	
0.93	

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Vinyl Siding	0.44
1" Insulation	6.00
Wood Siding	0.93
Air Space	1.10
Plaster	0.56
Inside Surface	0.68
Total R-Value	9.88
Total U-Value	0.10

Square feet 20	,580
----------------	------

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Shingles	0.44
Wood Deck	0.93
Air Space	1.10
Insulation	11.00
Gyp Board	0.56
Inside Surface	0.61
Total R-Valu	e 14.81
Total U-Valu	e 0.07

Calculated Total Area	
No. of Floors	1
Avg. Floor to Floor Height	9
No. of Basement Levels	
Gross Floor Area	20580
Roof Area	20580
Estimated Infiltration (cfm)	3100
Gross Wall Area	15650
Door Area	126
Gross Window Area	891
Other	
Net Wall Area	14633

Window and Door	
	U-Value
Window Single Pane W/Storm	0.60
Window Single Pane Wo/Storm	
Window Double Pane	
Skylight	
Glass Block	
Other	
Door Type 1	1.00
Door Type 2	
Door Type 3	

UoAo = (14633\*0.1) + (20580\*0.07) + (891\*0.6) + (126\*1.0) = 3564.5

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

**BUILDING NO. 504** 

Page 1 of 1

1	EQUIPMENT				SYSTEM NUMBER			
Boller   Unit Hrs		1	2	3		9	7	8
inding  P  P  Benser Fan HP  Pump HP  Pump HP  Pump HP  India  In	Equipment Name	Boiler	Unit Htrs					
19   19   19   19   19   19   19   19	COOLING:							
P   P   P   P   P   P   P   P   P   P	Type of Cooling				And the second s			
P	Air Side							
P	Location in Building							
P	Area Sq. Feet							
Parison	Supply CFM							
Part	Supply Fan HP		2					
Day	O.A. CFM or %							
Second	Return CFM							
Second   S	Return Fan HP							
Second Part	Chiller Tonnage							
Pump HP   Pump	Tower or Condenser Fan HP							
Pump HP   Pump	Condenser Pump HP							
rig         2         2         3197/1965         2         4 <th< td=""><td>Chilled Water Pump HP</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	Chilled Water Pump HP							
19	HEATING:							
1   2   2   2   2   2   2   2   2   2	Type of Heating	2						
173   1771965   173	Source		2					
Part	МВТИН	3197/1965						
1/3   1/3	Hot Water Pump HP							
Figure   F	Condensate Pump HP	1/3						
DX	ADDITIONAL:							
DX	Aux. HP Cooling							
Chiller	Aux. HP Heating							
Type of Cooling         Type of Cooling         Type of Heatin           DX         (4) Water Cooled Chiller         (1) Boiler Hot Water           Led DX         (5) Central Plant Supplied         (2) Boiler Steam           Chiller         (3) Steam to Hot Water Converter           Air Side         Heating Sourc           (4) VAV w/ Reheat         (1) Natural Gas           (5) Constant Volume Reheat         (2) Central Plant Steam           (6) Heating and Ventilating         (3) Central Plant Hot Water	Operating Schedule Hrs./Week							
Type of Cooling         Type of Heatin           DX         (4) Water Cooled Chiller         (1) Boiler Hot Water           Ied DX         (5) Central Plant Supplied         (2) Boiler Steam           Chiller         (3) Steam to Hot Water Converter           Air Side         Heating Sourc           (4) VAV w/ Reheat         (1) Natural Gas           (5) Constant Volume Reheat         (2) Central Plant Steam           (6) Heating and Ventilating         (3) Central Plant Hot Water								
DX         (4) Water Cooled Chiller         (1) Boiler Hot Water           led DX         (5) Central Plant Supplied         (2) Boiler Steam           Chiller         (6) Other         Heating Sourc           Air Side         Heating Sourc           (1) Natural Gas         Heating Sourc           (5) Constant Volume Reheat         (2) Central Plant Steam           (6) Heating and Ventilating         (3) Central Plant Hot Water	Type	of Cooling				Type of Hea	fina	
led DX (5) Central Plant Supplied (2) Boiler Steam  Chiller  Air Side  (4) VAV w/ Reheat (5) Constant Volume Reheat (6) Heating and Ventilating and Ventilating and Ventilating (3) Central Plant Steam (5) Central Plant Hot Water		(4) Water Coole	ed Chiller	)	1) Boiler Hot Water		(4) Furnace	
Chiller	(2) Water Cooled DX	(5) Central Plan	t Supplied		2) Boiler Steam			
Air Side Heating Source  (1) Natural Gas (2) Constant Volume Reheat (3) Central Plant Steam (6) Heating and Ventilating		(6) Other	-		<ol> <li>Steam to Hot Water C</li> </ol>	onverter		
e (4) VAV w/ Reheat (1) Natural Gas (5) Constant Volume Reheat (2) Central Plant Steam (6) Heating and Ventilating (3) Central Plant Hot Water		Air Side				Heating Soc	ırce	
(5) Constant Volume Reheat (6) Heating and Ventilating (9) Central Plant Hot Water	(1) Single Zone	(4) VAV w/ Reh	eat		1) Natural Gas		(4) Oil	
(6) Heating and Ventilating	(2) Multi-Zone	(5) Constant Vo	lume Reheat	<u> </u>	2) Central Plant Steam		(5) Electric	
	(3) VAV	(6) Heating and	Ventilating	<u> </u>	3) Central Plant Hot Water	Ji.		

### EMCS Annual Energy Savings Summary Report

Base: FTMEADE Building: 504

Case: 1
Description: TRAINING AIDE CENTER

Description: iraining alba Cantar

Fuel Type: Natural gas (methane) Heating Value: 1,031 Btu/cf

### Caution

The ESA program makes no attempt to exclude incompatible strategies.

It is the user's responsibility to select all appropriate strategies.

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### Annual Energy Savings Table for Steam Unit Heater

Description: STEAM UNIT HEAD	TERS			
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Run Time Recording Safety Alarm	134.058 0.000 0.000	0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	134.058 1,031	0 Btu/cf	0.0	4
Totals	130,027 cf /yr	0 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Steam Radiation

Description: STEAM RADIATION				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Run Time Recording Safety Alarm	69.102 0.000 0.000	0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	69.102 1,031	0 Btu/cf	0.0	4
Totals	67,024 cf /yr	0 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Lighting Control

Description: LIGHTING				======
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Lighting Control	0.000	52,416	0.0	0
Totals	0.000 MBtu/yr	52,416 kWh/yr	0.0 kW	0 mh/yr

EMCS Annual Energy Savings for Building 504

Description	Value	Units
Natural gas (methane) Electrical Energy Electrical Demand Reduction Labor Savings	197,051 52,416 0.0 8	cf /yr kWh/yr kW mh/yr
\ \===================================		

### FT. MEADE, MARYLAND

Building:

909

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Brick	0.44
1" Insulation Rigid	6.00
Concrete Block	1.72
3 1/2" Batt Insulation	11.00
Inside Surface	0.68
Total R-Value	20.01
Total U-Value	0.05

Square feet	23,	000
-------------	-----	-----

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Metal Roof	0.00
2" Rigid Insulation	12.00
Air Space	1.10
8" Batt Insulation	19.00
Inside Surface	0.61
Total R-Value	32.88
Total U-Value	0.03

Calculated Total Area	
No. of Floors	1
Avg. Floor to Floor Height	21
No. of Basement Levels	
Gross Floor Area	23000
Roof Area	23000
Estimated Infiltration (cfm)	
Gross Wall Area	15640
Door Area	190
Gross Window Area	910
Other	
Net Wall Area	14540

Window and Door	
	U-Value
Window Single Pane W/Storm	
Window Single Pane Wo/Storm	
Window Double Pane	0.55
Skylight	
Glass Block	0.10
Other	
Door Type 1	1.00
Door Type 2	0.60
Door Type 3	

## FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

**BUILDING NO. 909** 

Page 1 of 1

EQUIPMENT				SYSTEM NUMBER	VUMBER				
	1	2	3	4	5	9	7	8	
Equipment Name	ACC-1	ACC-2	ACC-3	ACC-4	Boiler	Convertor			
COOLING:					And the same of th				:
Type of Cooling	_	-	_	-					
Air Side	-		-	-					i i
Location in Building	Gym	Lobby	Games/Office	Classrooms	** ***********************************				
Area Sq. Feet	6350	4050	2500	2750					
Supply CFM	9200	8900	2790	3145					i
Supply Fan HP	7.5	7.5	3	8	TOTAL PROPERTY OF THE PERSON O				
O.A. CFM or %	3250	1000	009	750					
Return CFM									
Return Fan HP									
Chiller Tonnage	35	25	8	11					
Tower or Condenser Fan HP	4	2	-	1.5					
Condenser Pump HP									İ
Chilled Water Pump HP									
HEATING:									T
Type of Heating					2	3			
Source					-	2			
МВТИН					1288/791	105			
Hot Water Pump HP						-			
Condensate Pump HP					1/2				
ADDITIONAL:									Ī
Aux. HP Cooling									
Aux. HP Heating									
Operating Schedule Hrs./Week				:					
Type	Type of Cooling				-	Type of Heating			
(1) Air Cooled DX	(4) Water Cooled Chiller	d Chiller		(1) Boiler Hot Water		4)	(4) Furnace		
(2) Water Cooled DX	(5) Central Plant Supplied	t Supplied		(2) Boiler Steam					
(3) Air Cooled Chiller	(6) Other			(3) Steam to Hot Water Converter	Water Convert	er			
A	Air Side					Heating Source			Ť
(1) Single Zone	(4) VAV w/ Reheat	eat		(1) Natural Gas		4)	(4) Oil		
(2) Multi-Zone	(5) Constant Volume Reheat	lume Reheat		(2) Central Plant Steam	Steam	(5	(5) Electric		
(3) VAV	(6) Heating and	Ventilating		(3) Central Plant Hot Water	Hot Water	•			
G:PROJECTSM130.07\SS\909\EQUIPMNT.WK4									1

909.SM1

### EMCS Annual Energy Savings Summary Report

Base: FTMEADE Building: 909

Case: 1

Description: YOUTH CENTER

Fuel Type: Natural gas (methane) Heating Value: 1,031 Btu/cf

### Caution

The ESA program makes no attempt to exclude incompatible strategies.

It is the user's responsibility to select all appropriate strategies.

### Annual Energy Savings Table for Single Zone DX-A/C

Description: ACC-1				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Demand Limiting	0.000	0	1.1	0
Run Time Recording	0.000	0	0.0	2
Safety Alarm	0.000	0	0.0	2
Totals	0.000	0	1.1	4
	MBtu/yr	kWh/yr	kW	mh/yr

### Annual Energy Savings Table for Single Zone DX-A/C

Description: ACC-2				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Demand Limiting Run Time Recording Safety Alarm	0.000 0.000 0.000	0 0 0	1.1 0.0 0.0	0 2 2
Totals	0.000 MBtu/yr	0 kWh/yr	1.1 kW	4 mh/yr

Annual Energy Savings Table for Single Zone DX-A/C

Description: ACC-3				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Demand Limiting Run Time Recording Safety Alarm	0.000	0	0.4	0
	0.000	0	0.0	2
	0.000	0	0.0	2
Totals	0.000	0	0.4	4
	MBtu/yr	kWh/yr	kW	mh/yr

Annual Energy Savings Table for Single Zone DX-A/C

Description: ACC-4				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Demand Limiting Run Time Recording Safety Alarm	0.000	0	0.4	0
	0.000	0	0.0	2
	0.000	0	0.0	2
Totals	0.000	0	0.4	4
	MBtu/yr	kWh/yr	kW	mh/yr

Annual Energy Savings Table for Steam/Hot Water Converter

Description: CONVERTOR				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Hot Water OA Reset Run Time Recording Safety Alarm	19.385 0.000 0.000	0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	19.385 1,031	0 Btu/cf	0.0	4
Totals	18,802 cf /yr	0 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Lighting Control

Description: LIGHTING				======
Strategy	MBtu/yr	kWh/yr	====== kW	mh/yr
Lighting Control	0.000	65,520	0.0	0
Totals	0.000 MBtu/yr	65,520 kWh/yr	0.0 kW	0 mh/yr

### EMCS Annual Energy Savings for Building 909

Description	Value	Units
Natural gas (methane)	18,802	cf /yr
Electrical Energy	65,520	kWh/yr
Electrical Demand Reduction	3.1	kW
Labor Savings	20	mh/yr

### UMCS FEASIBILITY STUDY FORT MEADE BUILDING 909 - YOUTH CENTER DOE ENERGY SAVINGS SUMMARY

	Space Heat	r	Space Cool	HVAC Aux	Lights	Misc Equip	TOTAL	FAL	TOTAL	AL
	Electricity Natural Gas	atural Gas	Electricity	Electricity	Electricity	Electricity	Electricity	Electricity Natural Gas		Electricity Natural Gas
	mmBtu	mmBtu	mmBtu	mmBtu	mmBtu	mmBtu	mmBtu	mmBtu	Kwh	MCF
Existing	31.7	588.9	152.2	164.7	210.3	19.8	578.6	588.9	169,519	571.2
New w/Night Setback	8.6	187.0	153.5	73.5	210.3	19.8	466.9	187.0	136,798	181.4
Night Setback Savings							111.7	401.9	32,722	389.8
New w/Night Setback and Vent/Recirc	9.6	182.1	130.3	73.3	210.3	19.8	443.3	182.1	129,880	176.6
Vent/Recirc Savings							23.6	4.9	6,918	4.8
						:				
							:			
G-1980 IECTSIA130 0748Stonotholest IM MRZA										
G. V-ROJECTOWISC. DASSISSIND CESUM. WAS										

real Sys	ENTECH ENGIN DING, PA = HOUT	EERING 19603 RLY~REPORT		LITE SOPTWARE DIBILITY STUDY	PEVELOPMENT INC		.1D 12/ 1/1999 Э - YOUTH ACTIV	5 11:44:53 SDL RUN 1 VITY CENTER PAGE 1- 1
MMDDHH	AHU-1	AHU-1	AHU-1	AHU-1	AHU-2	AHU-2	AHU-2	AHU-2
	COOLING ELECTRIC KW	TOT HTG COIL PWR BTU/HR	COOLING CAPACITY BTU/HR	HEATING ELECTRIC KW	COOLING ELECTRIC KW	TOT HTG COIL PWR BTU/HR	COOLING CAPACITY BTU/HR	HEATING ELECTRIC KW
	(47)	(5)	(70)	(46)	(47)	( 5)	(70)	(46)
MONTHLY	SUMMARY (JAN)							
MN	0.000	-126034.	190990.	0.000	0.000	-88330.	217925.	0.000
MX	0.000	0.	246134.	0.000	0.000	0.		0.000
SM	0.000	-39838104.	163265104.		0.000		186116960.	0.000
AV	0.000	-53546.		0.000	0.000	-30166.		0.000
MONTHLY	SUMMARY (FEB)							•
MIN	0.000	-121962.	189108.	0.000	0.000	-86782.	215778.	0.000
MIX	0.000	0.		0.000	0.000	0.		0.000
SM	0.000	-31235732.	145702224.	0.000	0.000	-13484767.		0.000
VA	0.000	-46482.	216819.	0.000	0.000	-20067.		0.000
MONTHLY	SUMMARY (MAR)							
MN	0.000	-88117.	183550.	0.000	0.000	-53211.	202226.	0.000
MX	0.000	0.		0.000	0.000	0.		0.000
SM	0.000	-21051210.		0.000	0.000		176242656.	0.000
AV	0.000	-28295.	209477.	0.000	0.000	-5223.	236885.	0.000
MONTHLY	SUMMARY (APR)							
MN	0.000	-72464.	179393.	0.000	0.000	-45609.	203243.	0.000
MX	0.000	0.		0.000	0.000	0.		
SM	0.000	-10558371.		0.000	0.000		164953120.	0.000
AV	0.000	-14664.	204034.	0.000	0.000	-1124.		0.000
MONTHLY	SUMMARY (MAY)							
MN	0.000	0.	171089.	0.000	0.000	0.	189372.	0.000
MX	12,707	0.	225753.	0.000	14.942	0.		0.000
SM	793.138	0.	144117968.	0.000			162469888.	0.000
AV	1.066	0.	193707.	0.000	1.926	0.	218374.	0.000
MONTHLY	SUMMARY (JUN)		•			_		
MN	0.000	0.	166819.	0.000	0.000	٠.	187450.	0.000
MX	19.242	0.		0.000	19.597	0.		0.000
SM	2991.291		138933408.	0.000	4069.744	0.		0.000
AV	4.155	0.		0.000	5.652	0.		0.000
MONTHLY	SUMMARY (JUL)							
MN	0.000	0.	171242.	0.000	0.000	0.	191556.	0.000
MX	18.574	0.		0.000	18.892	0.		0.000
SM	4197.077	0.		0.000	\$313.867		160289440.	0.000
	5.641	0.		0.000	7.142	0.	215443.	0.000

ENTECH ENGINEERING BUILDING 909 - YOUTH ACTIVITY CENTER 19603 READING, PA UMCS FEASIBILITY STUDY - HOURLY-REPORT PAGE 2- 1 SYS AHU-1 AHU-1 AHU-1 AHU-1 AHU-2 AHU-2 AHU-2 AHU-2 COOLING TOT HTG COOLING HEATING COOLING TOT HTG COOLING HEATING ELECTRIC COIL PWR CAPACITY ELECTRIC ELECTRIC COIL PWR CAPACITY ELECTRIC BTU/HR BTU/HR KW ΚW BTU/HR BTU/HR KW ---- (70) ---- (47.) ---(5) ---(70) ---- (47) ----(5) ---- (46) ---- (46) MONTHLY SUMMARY (AUG) 0.000 MN ٥. 178123. 0.000 0.000 ۵. 190465 0.000 227925. 0.000 19.096 ٥. 247834. Ο. 0.000 ΜX 19.065 147209456. 0.000 4558.182 160962144. 0.000 ΑV 5.569 ٥. 197862. 0.000 6.127 ٥. 216347. 0.000 MONTHLY SUMMARY (SEP) 0.000 ٥. 176342. 0.000 0.000 ٥. 190391. 0.000 MX 18.354 Ο. 221431. 0.000 18.311 ο. 245167. 0.000 139591360. 2585.558 155485456. SM 2129.836 ٥. 0.000 ٥. 0.000 ΑV 2.958 193877. 0.000 0.000 MONTHLY SUMMARY (OCT) -96586. 171089. 0.000 0.000 -37516. 195218. 0.000 MN 0.000 ٥. 225726. 0.000 11.375 248528. 0.000 ΜX 11.195 -6738183. -1852930 SM 413.068 146104848 0.000 778.794 164955088. 0.000 -9057. ΑV 0.555 196377. 0.000 1.047 -2490. 221714. 0.000 MONTHLY SUMMARY (NOV) -75215. 0.000 -49506. MN 0.000 187241. 0.000 213505. 0.000 MX 247626. 0.000 0.000 253318. 0.000 0.000 ٥. ο. -6968305. 0.000 -18510164. 150725600. 0.000 0.000 169739200. ΑV 0.000 -25709. 209341. 0.000 0.000 -9678. 235749. 0.000 MONTHLY SUMMARY (DEC)

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11:44:53 SDL RUN 1

EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/1/1995 ENTECH ENGINEERING 11:44:53 SDL RUN 1 19603 UMCS FEASIBILITY STUDY READING, PA

BUILDING 909 - YOUTH ACTIVITY CENTER \* HOURLY-REPORT PAGE 1- 2 AHU-3 AHU-4 MMDDHH E-UHA AHU-3 AHU-3 AHU-4 AHU-4 AHU-4 COOLING TOT HTG COOLING HEATING COOLING TOT HTG COOLING HEATING ELECTRIC COIL PWR CAPACITY ELECTRIC ELECTRIC COIL PWR CAPACITY ELECTRIC KW BTU/HR BTU/HR ĸw KW BTU/HR BTU/HR ----(47) ----(5) ---- (70) ---- (46) ---- (47) ----(5) ---- (70) ---- (46) MONTHLY SUMMARY (JAN) -45476. MN 0.000 68645. 0.000 0.000 -43933. 68633. 0.000 88465. 0.000 0.000 MX 0.000 ٥. 0. 88449. 0.000 -13762697. 58625248. 0.000 -12440020. SM 0.000 58614904. 0.000 ΑV 0.000 -18498. 78797. 0.000 0.000 -16720. 78783. 0.000 MONTHLY SUMMARY (FEB) -43257. 0.000 MN 0.000 67969. 0.000 -41173. 67957. 0.000 0.000 0. 88465. 0.000 0.000 ٥. 88449. 0.000 -10197001. SM 0.000 52067336. 0.000 0.000 -9366234. 52050960. 0.000 -15174. 77481. AV 0.000 0.000 0.000 -13938. 77457. 0.000 MONTHLY SUMMARY (MAR) MN 0.000 -29919. 65643. 0.000 0.000 -29218. 65445. 0.000 MX 0.000 0... 82096. 0.000 0.000 0. 82081. 0.000 -5931948. 55512472. 0.000 0.000 -5422179. 0.000 55493584. SM 0.000 0.000 0.000 0.000 MONTHLY SUMMARY (APR) -26037. 64665. 0.000 0.000 -24460. 0.000 64654. 0.000 79779. MX 0.000 ٥. 79793. 0.000 0.000 ٥. 0.000 -2405852. -2294851. 51817172. 0.000 0.000 51774064. SM 0.000 0.000 0.000 ΑV 0.000 -3341. 0.000 -3187. 71908. 0.000 MONTHLY SUMMARY (MAY) 0.000 0.000 0.000 ٥. 60583. 0.000 MΧ 3.914 Ο. 77167. 0.000 4.027 ٥. 77153. 0.000 SM 339.358 ٥. 51267700. 0.000 337.512 ο. 51237112. 0.000 ٥. 0.000 ΑV 0.456 0.454 Ο. 68867. 0.000 MONTHLY SUMMARY (JUN) 59691. 0.000 0.000 ٥. ٥. 59750. MN 0.000 0.000 0.000 ΜX 6.458 ٥. 76170. 6.495 ٥. 76156. 0.000 SM 1151.516 0. 48902352. 0.000 1128.372 0. 48930968. 0.000 ΔV 1.599 ο. 67920. 0.000 1.567 0 67960. 0.000 MONTHLY SUMMARY (JUL) MN 0.000 Ο. 60966. 0.000 0.000 ٥. 60980. 0.000 6.575 MX 78396. 0.000 6.568 ٥. ٥. 78382. 0.000 1609.389 51394488. 0.000 1571.088 51535132. 0.000 ΑV 2.163 ο. 69079. 0.000 2.112 ٥. 69268. 0.000

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOR-2.1D 12/ 1/1995 11:44:53 SDL RUN 1 READING, 19603 UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER SYS = HOURLY-REPORT PAGE 2- 2 AHU-3 AHU-3 AHU-3 AHU-4 AHU-4 AHU-4 AHU-4 COOLING TOT HTG COOLING HEATING COOLING TOT HTG COOLING HEATING ELECTRIC COIL PWR ELECTRIC CAPACITY ELECTRIC COIL PWR CAPACITY ELECTRIC BTU/HR BTU/HR KW KW BTU/HR BTU/HR KW --- (47) ---(5) ---(70) ---- (46) --- (47) ---(5) ----(70) ---- (46) MONTHLY SUMMARY (AUG) 0.000 ٥. 61775. 0.000 0.000 Ο. 61829. 0.000 MX 6.430 0. 78066. 0.000 6.443 ٥. 78052. 0.000 SM 1511.641 Ο. 51505808. 0.000 1509.516 ٥. 51572372. 0.000 ΑV 2.032 ٥. 69228. 0.000 2.029 ο. 69318. 0.000 MONTHLY SUMMARY (SEP) MN 0.000 ٥. 62059 0.000 0.000 ٥. 62207. 0.000 ΜX 6.097 ٥. 77226. 0.000 6.109 ٥. 77212. 0.000 SM 805.310 0.000 49356680. 815.367 ٥. 49390456. 0.000 ΑV 1.118 ٥. 68551. 0.000 ٥. 68598. 0.000 MONTHLY SUMMARY (OCT) -30731. 0.000 61492. 0.000 0.000 -29739. 61481. 0.000 ΜX 3.739 Ο. 78285. 0.000 3.843 0. 78271. 0.000 -1852019 52041080. SM 188.130 0.000 188.309 -1748359. 0.000 ΑV 0.253 -2489. 69948. 0.000 0.253 -2350. 69889. 0.000 MONTHLY SUMMARY (NOV) -26803. 67297. 0.000 MN 0.000 0.000 -24678. 67286. 0.000 ΜX 0.000 0. 82323. 0.000 0.000 0. 82157. 0.000 -5947158. -5147902. 53530400. SM 0.000 0.000 0.000 53504136. 0.000 ΑV -8260. 74348. 0.000 0.000 0.000 -7150. 74311. 0.000 MONTHLY SUMMARY (DEC) MN -36117. 69326. 0.000 0.000 0.000 -35422. 69314. 0.000 ΜX 0.000 ٥. 84841. 0.000 0.000 ٥. 84826. 0.000 SM 0.000 -11850593. 57476164 0.000 0.000 -10440188. 57464316. 0.000 ΑV 0.000 -15928. 77253. 0.000 0.000 -14033. 77237. 0.000 YEARLY SUMMARY MN 0.000 -45476. 59691. 0.000 0.000 -43933. 59750. 0.000

0.000

0.000

0.000

6.575

0.634

5550.165

0.

-5349.

-46859732.

88449.

72325.

633565760

0.000

0.000

0.000

MX

ΑV

6.568

0.640

5605.342

0.

-51947264.

-5930.

88465.

72317.

633496896.

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 UMCS PEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER
REPORT- PV-A EQUIPMENT SIZES WEATHER FILE- BALTIMORE, MD

EQUIPMENT	NUMBER SIZE INSTD					
	(MBTU/H) AVAIL					
HW-BOILER	1.100 1 1					
HERM-REC-CHLR	0.100 1 1	0.100 1 1	0.300 1 1	0.400 1 1		

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/1/1995 11:44:53 FDL RUN 1
READING, PA 19603 UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER
REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY WEATHER FILE- BALTIMORE, MD

					s	ITE B	RNERG	Y				,	SOURCE
	2	3	4	5	6	7	8	9	10	11	12	13	14
MONTH	TOTAL HEAT LOAD	TOTAL COOLING LOAD	TOTAL ELECTR LOAD	RCVRED ENERGY	WASTED RCVRABL ENERGY	FUEL INPUT COOLING	ELEC INPUT COOLING	FUEL INPUT HEATING	ELEC INPUT HEATING	FUEL INPUT ELECT	TOTAL FUEL INPUT	TOTAL SITE SENERGY	SOURCE
JAN	94.4	0.0	41.8 12.3E	0.0	0.0	0.0	0.0 0.0E	154.2	9.1 2.7E	0.0	154.2	196.0	,
FEB	69.3	0.0	36.4 10.7E	0.0	0.0	0.0	0.0 0.0E	113.2	6.9 2.0E	0.0	113.2	149.6	222.6
MAR	40.8	0.0	39.0 11.4E	0.0	0.0	0.0	0.0 0.0E	66.7	4.5 1.3E	0.0	66.7	105.7	183.8
APR	19.5	0.0	34.8 10.2E	0.0	0.0	0.0	0.0 0.0E	31.8	2.5 0.7E	0.0	31.8	66.6	
YAM	0.0	0.0	42.6 12.5E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	0.0	42.6	127.9
NUTE	0.0	0.0	65.1 19.1E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	0.0	65.1	,
JUL	0.0	0.0	75.1 22.0E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	0.0	75.1	
AUG	0.0	0.0	74.5 21.8E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	0.0	74.5	
SEP	0.0	0.0	53.9 15.8E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	0.0	53.9	161.8
OCT	14.3	0.0	38.8 11.4E	0.0	0.0	0.0	0.0 0.0E	23.3	1.7 0.5E	0.0	23.3	62.1	139.9
NOV	40.8	0.0	35.8 10.5E	0.0	0.0	0.0	0.0 0.0E	66.6	4.4 1.3E	0.0	66.6	102.4	174.0
DEC	81.4	0.0	40.7 11.9E	0.0	0.0	0.0	0.0E	133.1	8.0 2.4E	0.0	133.1	173.8	255.4
			******		******	*****		*****			****	*******	
	360.5	0.0	578.6 169.5E	0.0	0.0	0.0	0.0 0.0E	588.9	37.2 10.9E	0.0	588.9	1167.5	2326.4

NOTE-- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES FOLLOWED BY E ARE IN MWH (THOUSANDS OF KWH) ENTECH ENGINEERING BZDOE - BLITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/1/1995 11:44:53 PDL RUN 1 READING, PA 19603 UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER REPORT- PS-B MONTHLY PEAK AND TOTAL ENERGY USE WEATHER FILE- BALTIMORE, MD

MO	UTILITY-	BLECTRICITY	NATURAL-GAS
	TOTAL (MBTU)	41.846	154.176
JAN	PEAK (KBTU)	122.297	496.465
	DY/HR	17/ 8	31/ 7
	TOTAL (MBTU)	36.435	113.211
FEB	PEAK (KBTU)	121.450	478.292
	DY/HR	3/8	3/ 7
	TOTAL (MBTU)	38.980	66.747
MAR	PEAK (KBTU)	111.927	327.222
	DY/HR	4/8	5/6
	TOTAL (MBTU)	34.806	31.833
APR	PEAK (KBTU)	110.039	288.137
	DY/HR	8/8	9/7
	TOTAL (MBTU)	42.598	0.000
MAY	PEAK (KBTU)	214.548	0.000
	DY/HR	6/16	31/ 1
	TOTAL (MBTU)	65.056	0.000
JUN		278.001	0.000
	DY/HR	29/16	30/1
	TOTAL (METU)	75.106	0.000
JUL		272.079	0.000
	• DY/HR	25/17	31/ 1
	TOTAL (MBTU)	74.539	0.000
AUG	PEAK (KBTU)	275.276	0.000
	DY/HR	18/17	31/ 1
	TOTAL (MBTU)	53.884	0.000
SEP		267.650	0.000
	DY/HR	1/17	30/ 1
	TOTAL (MBTU)	38.832	23.290
OCT	PEAK (KBTU)	204.110	308.588
	DY/HR	13/16	15/ 2
	TOTAL (MBTU)	35.768	66.596
NOA	PEAK (KBTU)	111.270	298.112
	DY/HR	23/ 8	23/ 7
	TOTAL (MBTU)	40.730	133.061
DEC		117.409	411.091
	DY/HR	21/8	26/ 7
	ONE YEAR	578.581	588.913
	USE/PEAK	278.001	496.465
	JAGE / GEU	270.001	4,50.465

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/1/1995 11:44:53 PDL RUN 1
READING, PA 19603 UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER
REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

HEATING LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD			
HW-BOILER	360.5	100.0			
		2820\$3288223			
LOAD SATISFIED	360.5	100.0			
TOTAL LOAD ON PLANT	360.5				
ELECTRICAL LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD			
ELECTRICITY	578.6	100.0			
	********				
LOAD SATISFIED	578.6	100.0			
TOTAL LOAD ON PLANT	578.6				

### SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISPIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
HEATING LOADS	360.5 578.6	360.5 578.6	0.000	0.000	0

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/1/1995 11:44:53 PDL RUN 1
READING, PA 19603 UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER
REPORT- PS-H EQUIPMENT USB STATISTICS WEATHER FILE- BALTIMORE, MD

	AVG	MAX	MON					
EQUIPMENT	OPER	LOAD	DAY	SIZE OPER				
	RATIO	(MBTU)	HR	(MBTU) HRS				
			<del>-</del>					
HW-BOILER	0.069	0.314	1 31 7	1.100 4728				
		0 000		0.100				
HERM-REC-CHLR	0.000	0.000	0 0 0	0.100 0	0.100 0	0.300 0	0.400 0	

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/1/1995 11:44:53 PDL RUN 1
READING, PA 19603 UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER
REPORT- PS-I EQUIPMENT LIFE CYCLE COSTS WEATHER FILE- BALTIMORE, MD

E Q	υI	P M	Е	N	T	т	0	т	A	L	s				
HW-BO	DILER						43	.3							
	NOMINAL SIZE (MBTU)											1.100			
NUMBER INSTALLED												1			
	FIRST COST (K\$)									37	. 8	37.8			
					T (K\$					0	. 9	0.9			
					T (KS					4	. 6	4.6			
					(K\$							43.3			
HERM-	HERM-REC-CHLR					38	.5								
		NOMI	IAL :	SIZI	(MBT	J)						0.100	0.100	0.300	0.400
		NUMBI	ER I	NST	LLED							1	1	1	1
		FIRST		COS	T (K\$	)				32	.i	4.9	4.9	10.1	12.3
		ANNU	T	COS	T (KS	)				6	. 4	1.4	1.4	1.7	1.8
CYCLICAL COST (K\$)										0	٥.	0.0	0.0	0.0	0.0
TOTAL (K\$)												6.2	6.2		
	EQUI	PMENT	TOT	AL			81	8							

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/1/1995 11:44:53 PDL RUN 1 READING, PA 19603 UMCS FEASIBILITY STUDY BUILDING 909 - VOUTH ACTIVITY CENTER REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE WEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE MBTU -	ELECTRICITY	NATURAL-GAS
CATEGORY OF USE		
SPACE HEAT	31.68	588.91
SPACE COOL	152.15	0.00
HVAC AUX	164.68	0.00
DOM HOT WIR	0.00	0.00
AUX SOLAR	0.00	0.00
LIGHTS	210.31	0.00
VERT TRANS	0.00	0.00
MISC EQUIP	19.75	0.00
TOTAL	578.58	588.91

TOTAL SITE ENERGY 1167.49 MBTU 59.4 KBTU/SQFT-YR GROSS-AREA 59.4 KBTU/SQFT-YR NET-AREA TOTAL SOURCE ENERGY 2326.39 MBTU 118.3 KBTU/SQFT-YR GROSS-AREA 118.3 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 0.1
PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.0

NOTE ELECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

REA	DING,	PA		EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/1/1995 11:44:5: UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER		
B1		= HOURI	Y-REPORT		1- 1	
MMDDHH	HW-BOIL		HW-BOILE			
PPUDDAR	R		R R			
	LOAD		ELECTRIC USE			
	BTU/HR		BTU/HR			
	( 1	.)	(3)			
MONTHIA	SUMMARY	(JAN)				
MN	-	7 9 4	544.			
MX	314	467	24200.			
SM	94440					
AV	126					
MONTHER	Y SUMMARY	(PER)				
MN	4		375.			
MX		204.				
SM	69308					
AV		3137.				
		(1427)				
	Y SUMMARY		293.			
MX	200	241.				
SM	40845	5148.	3594373.			
AV	54	4899.	4831.			
MONTHL	Y SUMMARY	(APR)				
MN		2081.	183.			
MX	17	6323.	15516.			
SM						
AV	2	7055.	2381.			
MONTHL	Y SUMMARY	(MAY)				
MN		0.				
MX		0.	0.			
SM		0.	0.			
AV		٥.	0.			
MONTHL	Y SUMMARY	(JUN)				
MN		0.	0.			
MX		0.	0.			
SM		0.	. 0.			
AV		0.	٥.			
MONTHL	Y SUMMARY	(JUL)				
MN		0.				
MX		0.	0.			
SM		Ο.	0.			
AV		0.	0.			

	ENT READIN				EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/1/1995 11:44 UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTE	:53 :R	PDL	RUN 1
B1				Y-REPORT		PA	GE	2- 1
				HW-BOILE				
	R			R				
				ELECTRIC				
	_			USE				
	R'	त्ता/भर		BTU/HR				
	-	{ 1	.)	(3)				
MON	THLY SU	MMARY	(AUG)					
1	MN		0.	0.				
:	MX		Ο.					
	SM		0.	0.				
	AV		Ο.	0.				
MON	THLY SU	MMARY	(SEP)					
	MN		0.	٥.				
	MX		0.					
	SM		0.	0.				
	AV		ο.	0.				
MON	THLY SU	WM A DV	(OCT)					
				0.				
	MX	188	0. 8838.	16618.				
				1254163.				
			156.					
MON	THLY SU	VSAMM	(NOV)					
			2081.	183.				
	MX		427.					
				3586267.				
	AV		601.					
MON	THLY SU	MMARY	(DEC)					
			312.	467.				
	MX	253	1564.	22138.				
	SM	81425	968.	7165487.				
		109		9631.				
AEV	RLY SUM	MARY			-			
	MIN			0.				
				24200.	i			
	SM	360504	640.	31684020.				
				3617.				

ENTECH ENGINEERING READING, PA · 19603 SYS = HOURLY-REPORT			ITE SOFTWARE DEBILITY STUDY		DOE-2.1D 6/28/1996 9:34:25 SDL RUN BUILDING 909 - YOUTH ACTIVITY CENTER PAGE 1-				
MMDDHH		AHU-1	AHU-1	AHU-1	AHU-2	AHU-2	AHU-2	AHU-2	
	COOLING ELECTRIC KW	TOT HTG		HEATING ELECTRIC KW	COOLING ELECTRIC KW	TOT HTG COIL PWR BTU/HR	COOLING CAPACITY	HEATING ELECTRIC KW	
	(47)	(5)	(70)	(46)	(47)	( S)	(70)	(46)	
MONTHLY	SUMMARY (JAN)								
MN	0.000	-222455.	0.	0.000	0.000	-160859.	0.	0.000	
MX	0.000	0.	246134.	0.000	0.000	0.	280847.	0.000	
SM	0.000		59546524.	0.000	0.000	-9096970.	71012856.	0.000	
AV	0.000	-16642.		0.000	0.000	-12227.	95447.	0.000	
MONTHLY	SUMMARY (FEB)			·¥·					
MN	0.000	-213635.	0.	0.000	0.000	-123313.	0.	0.000	
MX	0.000	0.	246134.	0.000	0.000	120020.	280847.	0.000	
			49135668.						
SM					0.000		55089952.		
AV	0.000	-10288.	73119.	0.000	0.000	-4724.	81979.	0.000	
	SUMMARY (MAR)								
MN	0.000	-159287.	0.	0.000			0.	0.000	
MX	0.000	0.	231232.	0.000	0.000	0.	258175.	0.000	
SM	0.000	-2684154.	57961868.	0.000	0.000	-671707.	86566192.	0.000	
AV	0.000	-3608.	77906.	0.000	0.000	-903.	116352.	0.000	
MONTHLY	SUMMARY (APR)								
MIN	0.000	-88568.	0.	0.000	0.000	-11819.	0.	0.000	
MX	0.000	0.	236162.	0.000	0.000			0.000	
SM	0.000		53669108.		0.000		119970096.		
AV	0.000	-482.	74540.	0.000	0.000	-1409.	166625.	0.000	
MONTHLY	SUMMARY (MAY)								
MN	0.000	0.	0.	0.000	0.000	0.	0.	0.000	
MX	13.966			0.000			243804.	0.000	
SM	1570.397		50512644.				77987312.		
AV	2.111	0.					104822.		
MONTHE	SUMMARY (JUN)								
MN	0.000	٠.	٥,	0.000	0.000	n	0.	0.000	
		0.							
MX	19.554		52355444.		4020.703	Ū.	444044.	0.000	
SM	3072.392	0.	52355444. 72716.		4029.208	0.	242644. 85475416. 118716.	0.000	
VΑ	4.267	J.	/2:15.	0.000	5.576	0.	118716.	0.000	
	SUMMARY (JUL)	2	0.	0.000	0.000	_	•	0.000	
MIN	0.000	٥.	211886.	0.000	0.000	0.	0. 245730.	0.000	
MX	18.650				20.901				
SM	3384.639		47801108.				87267064.	0.000	
AV	4.549	0.	64249.	0.000	5.796	0.	117294.	0.000	

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/28/1996 9:34:25 SDL RUN 1 PA 19603 = HOURLY-REPORT BUILDING 909 - YOUTH ACTIVITY CENTER READING, 19603 UMCS FEASIBILITY STUDY SYS PAGE 2- 1 AHU-1 AHU-1 AHU-1 AHU-1 AHU-2 AHU-2 AHU-2 AHU-2 HEATING COOLING COOLING COOLING COOLING TOT HTG TOT HTG HEATING COIL PWR ELECTRIC ELECTRIC COIL PWR CAPACITY ELECTRIC CAPACITY ELECTRIC BTU/HR BTU/HR KW ĸw BTU/HR BTU/HR . ---- ( 5) ----(5) ---- (47) ---- (70) ---- (46) ---- (47) ---- (70) ---- (46) MONTHLY SUMMARY (AUG) 0.000 MN 0. 0. 0.000 0.000 ٥. 0.000 213780. 0.000 20.469 4133.435 242976. MX 19.249 α. 0. 0.000 3773.703 SM Ο. 54739244. 0.000 ٥. 81607904. 0.000 5.072 ٥. 73574. 0.000 5.556 109688. 0.000 MONTHLY SUMMARY (SEP) 0.000 ٥. 0.000 0.000 ο. MN 0. 0. 0.000 18.946 214386. 0.000 19.907 ٥. 242235. 0.000 ΜX SM 2481.315 ٥. 49984988. 0.00 2727.089 ٥. 68443456. 0.000 0.000 95060. AV 3.446 0. 69424. 3.788 ٥. 0.000 MONTHLY SUMMARY (OCT) MN 0.000 -76051. ٥. 0.000 0.000 -11389. 0 0.000 225475. 0.000 13.139 248528. 13.021 0. ΜX э. 0.000 1123.711 -420894. 48950948. 0.000 1414.495 -29180. 58631148. 0.000 ΑV 1.510 -566. 65794. 0.000 1.901 -39. 78805. 0.000 MONTHLY SUMMARY (NOV) 0.000 -126632. 0.000 0.000 -79011. 0.000 0. -1141801. MX 0.000 ٥. 248522. 0.000 0.000 255203. 0.000 -1968576. 0.000 51704320. 0.000 60286188. SM 0.000 0.000 ΑV 0.000 -2734. -1586. 83731. 0.000 MONTHLY SUMMARY (DEC) 0.000 -200324. 0.000 -123935. 0.000 0.000 0. -7592247. 236053. 0.000 0.000 0. -6922292. 269343. 0.000 SM 0.000 54401712. 0.000 0.000 61832656. 0.000 ΑV -10205. 73121. 0.000 0.000 -9304. 83108. 0.000 0.000 YEARLY SUMMARY

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ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/28/1996 9:34:25 SDL RUN 1 READING, PA 19603 UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER SYS = HOURLY-REPORT PAGE 1- 2 AHU-4 MMDDHH AHU-3 AHU-3 AHU-3 AHU-4 AHU-4 AHU-4 TOT HTG COOLING HEATING COOLING TOT HTG COOLING COOLING HEATING ELECTRIC COIL PWR CAPACITY ELECTRIC ELECTRIC COIL PWR CAPACITY ELECTRIC BTU/HR BTU/HR KW KW BTU/HR BTU/HR ---(5) ----(70) ---- (46) ----(47) ----(47) ----(5) ---- (70) ---- (46) MONTHLY SUMMARY (JAN) MN 0.000 -87581. ٥. 0.000 0.000 -86329. 0. 0.000 88465. 0.000 88449 ΜX 0.000 0. 0.000 0. 0.000 -4482363. -6110297. 0.000 23423982. 0.000 0.000 22103326. 0.000 SM 0.000 -8213. 31484. 0.000 0.000 -6025. 29709. 0.000 MONTHLY SUMMARY (FEB) 0.000 0.000 -80753. 0.000 -77589. 0. 0.000 MN 0.000 0. 88465. 0.000 0.000 0. 88449. 0.000 -2192984. -3240249. SM 0.000 18013876. 0.000 0.000 17361518. 0.000 26806. 0.000 -4822. 0.000 25836. ΑV 0.000 -3263. 0.000 MONTHLY SUMMARY (MAR) -59288. ٥. 0.000 0.000 MN 0.000 -55204. ο. 0.000 0.000 0. 81323. 0.000 0.000 81309. 0.000 0. MX 0.000 -1027462. 20302114. 0.000 0.000 -554547. 20296050. 0.000 ΑV 0.000 -1381. 27288. 0.000 0.000 -745. 27280. 0.000 MONTHLY SUMMARY (APR) 0.000 -26243. 0 0.000 0.000 -22289. 0.000 79779. 79793. 0.000 MX 0.000 0. 0.000 0. 0.000 0.000 -138999. 18465844. 0.000 0.000 -45719. 18655486. 0.000 SM 0.000 -193. 25647. 0.000 0.000 MONTHLY SUMMARY (MAY) 0.000 0.000 0.000 4.329 ٥. 76797. 0.000 4.436 ٥. 76783. 0.000 SM 538.409 ٥. 17257426. 0.000 554.148 ο. 17244236. 0.000 ٥. 0.000 0.745 AV 0.724 ٥. 23178. 0.000 MONTHLY SUMMARY (JUN) 0.000 ٥. 0.000 0.000 ο. 0.000 MN 6.739 0. 71415. 0.000 6.752 71038. 0.000 17992704. SM 1066.938 0. 0.000 1056.341 Ο. 17596722. 0.000 24990. ΑV Ο. 0.000 1.467 Ο. 1.482 24440. 0.000 MONTHLY SUMMARY (JUL) 0.000 0.000 MN Ο. 0.000 ٥. 0.000

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ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/28/1996 9:34:25 SDL RUN 1
READING, PA 19603 UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER

's	= HOU	RLY-REPORT						PAGE
	AHU-3	AHU-3	AHU-3	AHU-3	AHU-4	AHU-4	AHU-4	AHU-4
	COOLING ELECTRIC KW	TOT HTG COIL PWR BTU/HR	COOLING CAPACITY BTU/HR	HEATING ELECTRIC KW	COOLING ELECTRIC KW	TOT HTG COIL PWR BTU/HR	COOLING CAPACITY BTU/HR	HEATING ELECTRIC KW
	(47)	(5)	(70)	(46)	~(47)	(5)	(70)	(46)
MONTHLY	SUMMARY (AUG)							
MN	0.000	0.	0.	0.000	0.000	0.	٥.	0.000
MX	5.660	n	70987	0.000	6.675	0.	70928.	0.000
SM	1278.037	0.	18331272.	0.000	1287.088	0.	18356098.	0.000
AV	1.718	0.	24639.	0.000	1.730		24672.	0.000
MONTHLY	SUMMARY (SEP)							,
MN	0.000	0.	0. 73168.	0.000	0.000	0.	0.	0.000
MX	6.482	0.	73168.	0.000	6.491	0.		0.000
SM	816.561	0.	16837770.	0.000	839.907	0.	16836158.	0.000
AV	1.134	0.	23386.	0.000	1.167		23384.	0.000
MONTHLY	SUMMARY (OCT)							
MN	0.000	-30843.	0.	0.000	0.000	-26626.	0.	0.000
MX	4.244	ο.	78285.	0.000	4.382	٥.		0.000
SM	356.798	-197396.	16594709.	0.000	394.689	-110509.	16565257.	0.000
ΑV	0.480	-265.	22305.	0.000	0.530	-149.		0.000
MONTHLY	SUMMARY (NOV)							
MN	0.000	-59226.	0.	0.000	0.000	-51979.	0.	0.000
MEX	0.000	0.			0.000	٥.		0.000
SM	0.000	-1267402.	17898272.	0.000	0.000	-611912.	17968804.	0.000
ΑV	0.000	-1760.	24859.	0.000	0.000	-850.	24957.	0.000
MONTHLY	SUMMARY (DEC)							
MN	0.000	-74020.			0.000			0.000
MX	0.000	٥.		0.000	0.000	٥.		0.000
SM	0.000	-4243262.		0.000	0.000	-2694300.	19258718.	0.000
ΑV	0.000	-5703.	27180.	0.000	0.000	-3621.	25885.	0.000
	SUMMARY							
MN		+87581.		0.000			0.	0.000
MX	6.792	0.	88465.	0.000	6.770			0.000
SM	5217.697		222002656.		5282.935		218296240.	0.000
AV	0.596	-1852.	25343.	0.000	0.503	-1231.	24920.	0.000

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 UMCS FEASIBILITY STUDY
REPORT- PV-A EQUIPMENT SIZES REPORT- PV-A EQUIPMENT SIZES WEATHER FILE- BALTIMORE, MD

9:34:25 PDL RUN 1

C DOE-2.1D 6/28/1996 9:34:25 BUILDING 909 - YOUTH ACTIVITY CENTER

NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER SIZE INSTD SIZE INSTD SIZE INSTD SIZE INSTD SIZE INSTD

(MBTU/H) AVAIL (MBTU/H) AVAIL (MBTU/H) AVAIL (MBTU/H) AVAIL (MBTU/H) AVAIL (MBTU/H) AVAIL

HW-BOILER 1.100 1 1

HERM-REC-CHLR 0.100 1 1 0.100 1 1 0.300 1 1 0.400 1 1 ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/28/1996 9:34:25 PDL RUN 1
READING, PA 19603 UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER
REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY WEATHER FILE- BALTIMORE, MD

SITE ENERGY SOURCE 2 3 5 6 7 8 9 10 12 13 14 TOTAL WASTED FUEL TOTAL TOTAL ELEC FUEL. ELEC FUEL TOTAL TOTAL TOTAL RCVRED RCVRABL INPUT INPUT INPUT INPUT INPUT FUEL SITE SOURCE MONTH LOAD LOAD LOAD ENERGY ENERGY COOLING COOLING HEATING HEATING ELECT ENERGY ---------JAN 38.4 61.7 4.8 0.0 61.7 90.8 \* 149.1 8.5E 0.0E 1.4E FEB 24.7 0.0 20.9 0.0 0.0 0.0 0.0 33.9 3.2 0.0 33.9 58.6 \* 108.1 7.2E 0.0E 0.9E MAR 10.2 0.0 29.2 0.0 0.0 0.0 0.0 16.7 2.5 0.0 16.7 45.9 \* 104.5 8.6E 0.0E 0.7E 27.9 APR 5.8 0.0 0.0 0.0 0.0 0.0 9.4 2.0 0.0 9.4 37.3 \* 93.2 3.2E 0.0E 0.62 MAY 0.0 0.0 42.0 0.0 0.0 0.0 0.0 0.0 42.0 \* 126.2 0.0 0.0 12.3E 0.0E 0.03 JUN 0.0 0.0 0.0 0.0 0.0 0.0 57.5 \* 172.6 0.0 0.0 16.8E 0.0E 0.0E JUL 0.0 0.0 58.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 174.5 0.0 58.1 \* 17.0E 0.0E 0.03 AUG 52.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 62.6 \* 188.1 0.0 0.0 18.3E 0.0E 0.0E 47.8 SEP 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 47.8 \* 143.4 14.0E 0.0E 0.0E 35.2 OCT 3.1 0.0 0.0 0.0 0.0 0.0 5.1 1.1 0.0 5.1 40.3 \* 110.8 10.3E 0.0E 0.3E NOV 9.7 0.0 25.1 0.0 0.0 0.0 0.0 15.8 0.0 15.8 40.9 \* 91.2 7.4E 0.0E 0.7E DEC 27.4 0.0 0.0 0.0 0.0 0 0 44.3 0.0 72.0 \* 5.1E 0.0E 1.1E 466.9 0.0 0.0 0.0 115.5 0.0 0.0 187.0 19.8 0.0 187.0 653.9 \* 1589.1 0.0E 5.3E

NOTE-- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES FOLLOWED BY E ARE IN MWH (THOUSANDS OF KWH)

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/28/1996 9:34:25 PDL RUN 1
READING, PA 19603 UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER
REPORT- PS-B MONTHLY PEAK AND TOTAL ENERGY USE WEATHER FILE- BALTIMORE, MD

МО UTILITY-ELECTRICITY NATURAL-GAS TOTAL (MBTU) 29.080 61.740 PEAK (KBTU) 127.499 794.618 JAN DY/HR 31/11 31/ 7 TOTAL (MBTU) 24.718 33.911 PEAK (KBTU) 127.499 671.590 FEB DY/HR 14/8 14/ 7 TOTAL (MBTU) 29.235 16.696 MAR PEAK (KBTU) 120.073 463.274 DY/HR 7/8 7/ 7 TOTAL (METU) 27.897 9.442 PEAK (KBTU) 110.569 259.750 APR DY/HR 11/8 11/ 7 TOTAL (MBTU) 42.019 0.000 PEAK (KBTU) MAY 230.505 0.000 DY/HR 6/16 31/ 1 TOTAL (MBTU) 57.479 0.000 JUN PEAK (KBTU) 284.196 0.000 DY/HR 29/16 30/ 1 TOTAL (MBTU) 58.106 0.000 JUL PEAK (KBTU) 282.502 0.000 - DY/HR 25/14 31/ 1 TOTAL (MBTU) 62.624 0.000 282.305 AIK PEAK (KBTU) 0.000 DY/HR 18/16 31/ 1 TOTAL (MBTU) 47.752 0.000 SEP PEAK (KBTU) 278.115 0.000 DY/HR 30/ 1 35.176 TOTAL (MBTU) 5.140 PEAK (KBTU) 218.390 241.586 OCT DY/HR 13/16 24/ 7 TOTAL (MBTU) 25.117 15.818 NOV PEAK (KBTU) 123.764 514.509 DY/HR 28/8 28/ 7 TOTAL (MBTU) 27.698 44.267 127.499 27/9 DEC PEAK (KBTU) 663.883 27/ 7 DY/HR ONE YEAR 466.900 187.014 USE/PEAK 284.196 794.618

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER
REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

HEATING LOADS	METU SUPPLIED	PCT OF TOTAL LOAD
HW-BOILER	115.5	100.0
	******	
LOAD SATISFIED TOTAL LOAD ON PLANT	115.5 115.5	100.0
ELECTRICAL LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
ELECTRICITY	466.9	100.0
LOAD SATISFIED TOTAL LOAD ON PLANT	466.9 466.9	100.0

. SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
HEATING LOADS	115.5	115.5	0.000	0.000	0
ELECTRICAL LOADS	466.9	466.9	0.000	0.000	Q

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/28/1996 9:34:25 PDL RUN 1
READING, PA 19603 UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER
REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER FILE- BALTIMORE, MD

EQUIPMENT	AVG OPER RATIO	MAX LOAD (MBTU)	MON DAY HR	SIZE OPER (MBTU) HRS				
HW-BOILER	0.022	0.570	1 31 7	1.100 4728				
HERM-REC-CHLR	0.000	0.000	0 0 0	0.100 0	0.100 0	0.300 0	0.400 0	

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/28/1996 9:34:25 PDL RUN 1
READING, PA 19603 UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER
REPORT- PS-I EQUIPMENT LIFE CYCLE COSTS WEATHER FILE- BALTIMORE, MD

EQUIPMENT	гот.	A L S				
HW-BOILER	43.3					
NOMINAL SIZE (MBTU)			1.100			
NUMBER INSTALLED			1			
FIRST COST (K\$)		37.8	37.8			
ANNUAL COST (K\$)		0.9	0.9			
CYCLICAL COST (K\$)		4.6	4.6			
(K\$)			43.3			
HERM-REC-CHLR	38.5					
NOMINAL SIZE (MBTU)			0.100	0.100	0.300	0.400
NUMBER INSTALLED			1	1	1	1
FIRST COST (K\$)		32.1	4.9	4.9	10.1	12.3
ANNUAL COST (K\$)		6.4	1.4	1.4	1.7	1.8
CYCLICAL COST (K\$)		0.0	0.0	0.0	0.0	0.0
(K\$)			6.2	6.2	11.9	14.1
EQUIPMENT TOTAL	81.8					

DOE-2.1D 6/28/1996 9:34:2 BUILDING 909 - YOUTH ACTIVITY CENTER EZDOE - ELITE SOFTWARE DEVELOPMENT INC ENTECH ENGINEERING 9:34:25 PDL RUN 1 ENGINEERING EZDOE - ELITE SOFTWARE DE PA 19603 UMCS FEASIBILITY STUDY READING, PA 19603 UMCS FEASIBII REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE WEATHER FILE- BALTIMORE, MD ALEON DELLE 
ENERGY TYPE IN SITE MBTU -	ELECTRICITY	natural-gas
CATEGORY OF USE		
SPACE HEAT	9.83	187.01
SPACE COOL	153.51	0.00
HVAC AUX	73.49	0.00
DOM HOT WTR	0.00	0.00
AUX SOLAR	0.00	0.00
LIGHTS	210.32	0.00
VERT TRANS	0.00	0.00
MISC EQUIP	19.75	0.00
TOTAL	466.90	187.01

TOTAL SITE ENERGY TOTAL SOURCE ENERGY 1589.12 MBTU

653.91 MBTU

33.3 KBTU/SQFT-YR GROSS-AREA 80.8 KBTU/SQFT-YR GROSS-AREA

33.3 KBTU/SQFT-YR NET-AREA 30.8 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 10.3 PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED

NOTE ELECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

Bl	= HOUR	19603 LY-REPORT	UMCS FEASIBILITY STUDY		BUILDING 909 -	6/28/1996 YOUTH ACTIVITY	9:34:2 CENTER	PAG
MMDDHH	HW-BOILE	HW-BOILE						
PERDUNA	R R	R						
	LOAD	ELECTRIC						
	LOAD	USE						
	BTU/HR	BTU/HR						
	(1)	(3)						
	SUMMARY (JAN)							
MIN	3773.	332.	_					
MX	570134.	24200.						
SM	38375348.							
AV	51580.	4286.						
	SUMMARY (FEB)					•		
MIN	3773.	332.						
MX	463408.	24200.						
SM	20920230.	1786917.						
AV	31131.	2659.						
	SUMMARY (MAR)							
MN	3773.	332.						
MX	286617.	24200.						
SM	10220167.	898352.						
AV	13737.	1207.						
	SUMMARY (APR)							
MN	3773.	332.						
MX	158952.	13988.						
SM	5778080.	508471.						
VA	8025.	706.						
	SUMMARY (MAY)	_						
MN	0.	0.						
MX	0.	0.						
M2 AV	0. 0.	0. 0.						
MONTHIT.	SUMMARY (JUN)							
MN	0.	0.						
MX	0.	0.						
SM	0.	0.						
AV	0.	0.						
MONTHIA	SUMMARY (JUL)							
MN	0.	٥.						
MX	0.	0.		•				
SM	0	0.						

			ERING	EZDOE - ELITE SOFTWARE DEVELOPMENT	INC	DOE-2.1D	6/28/1996	9:34:25	PDI	RUN .
			19603	UMCS FEASIBILITY STUDY		BUILDING 909 -				
B1		= HOUR	LY-REPORT						PAGE	2-
			HW-BOILE							
	R		R							
	LOAD		ELECTRIC USE							
	BTU/HR		BTU/HR							
	(	1)	(3)							
MONTHILY	SUMMARY	(AUG)								
MN	00.224.2	0.	0.							
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SM		0.								
AV		0.	0.							
AV		٥.	v.							
	SUMMARY									
MN		0.	0.							
MX		0.								
SM		0.	0.							
AV		0.	0.							
MONTHLY	SUMMARY	(OCT)								
MIN		0.	0.							
MX	14	7837.	13010.							
SM	3149	5479.	276802.							
AV	4	4228.	372.							
MONTHLY	SUMMARY	(NOV)								
MIN		3773.	332.							
MX	329	9657.	24200.							
SM	9694	4687.	24200. .848323.							
AV	13		1178.							
MONTHLY	SUMMARY	(DEC)								
MN			332.							
MX		5781.								
SM	27368		2318654.							
	36		3116.							
	SUMMARY									
MN		0.	0.							
MX			24200.							
SM			9826015.							
AV			1122.							

	ENTECH	ENGINE	ERING	EZDOE - ELITE SOFTWARE DEVELOPMENT UMCS FEASIBILITY STUDY	INC	DOE-2.1D	6/28/1996	9:34:25	PDL	RUN
REAI AC1			19603 LY-REPORT	UMCS FEASIBILITY STUDY		BUILDING 909 -	YOUTH ACTIVITY			1- :
MMDDHH	HERM-CI T-CHLR LOAD	EN	HERM-CEN T-CHLR ELECTRIC USE				•••••			
	BTU/HR		BTU/HR							
	(	1)	(3)							
	SUMMARY									
MN		0.	0.							
MEX		٥.								
SM		0.	0.							
ΑV		0.	0.							
	SUMMARY									
MIN		0.	0.							
MX		0.								
SM		0.	0.							
AV		0,	0.							
MONTHLY	SUMMARY									
MN		Ο.	0.	•						
MX		0.	٥.							
SM		0.	0.							
AV		0.	0.							
MONTHLY	SUMMARY	(APR)								
MIN		0.	0.							
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	SUMMARY									
MIN		0.		•						
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1401977777777	SUMMARY	( 1171)		•						
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SM		0.	0.							
AV		0.	0.							
MONTHLY	SUMMARY	(JUL)								
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MX		0.	0.							
SM		0.	0.							
AV		0.	٥.							

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		ENGINEERING	EZDOE - ELITE SOFTWARE DEVELOPMENT INC UMCS FEASIBILITY STUDY	DOE-2.1D 6/28/1996 9:34:25 PDL RUN 1	
AC1		= HOURLY-REPORT	UMCS FEASIBILITY STUDY		
				PAGE 2- 1	
	HERM-C				
	T-CHLR				
	LOAD				
		USE			
	BTU/HR	BTU/HR			
	(	1)(3)			
MONT	HLY SUMMARY	(AUG)			
M	N	0. 0.			
M	K	0. 0.			
S		0. 0.			
A.	V	0. 0.			
MONT	HLY SUMMARY	(SEP)			
M	Ŋ	0. 0.			
M.	K	0. 0.		i	
Si	4	0. 0.			
A'	7	0. 0.			
MONT	HLY SUMMARY	(OCT)			
M		0. 0.			
M		0. 0.			
S	4	0. 0.			
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MONT	HLY SUMMARY	(DEC)			
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LC2	READ	ING,	PA = HOUR	ERING 19603 LY-REPORT	EZDOE - ELITE SOFTWARE DEVELOPMENT UMCS FEASIBILITY STUDY	BUILDING 909 -	YOUTH ACTIVITY	CENTER	PAGE	1-
IMDD:		HERM-CE		HERM-CEN		 				
		T-CHLR		T-CHLR						
		LOAD		ELECTRIC						
		LUAD		USE						
		BTU/HR		BTU/HR						
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MON	THLY	SUMMARY	(APR)							
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		SUMMARY								
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MON	THLY	SUMMARY	(JUL)							
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REA	DING,	PA	19603	EZDOE - ELITE SOFTWARE DEVELOPMENT IN UMCS FEASIBILITY STUDY	C DOE-2.1D BUILDING 909 -	6/28/1996 YOUTH ACTIVITY	9:34:25 CENTER	5 PDL	RUN	1
AC2		= HOURI	Y-REPORT					PAGE		
			HERM-CEN							· <del>-</del>
	HERM-CE T-CHLR									
	LOAD									
	LUAD		USE							
			BTU/HR							
	BTU/ HR		B1U/HR							
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AC3			Y-REPORT		PAGE	
MMDDHH	HERM-C		HERM-CEN			
	T-CHLR		T-CHLR			
	LOAD		ELECTRIC			
			USE			
	BTU/HR		BTU/HR			
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MONTHLY	SUMMARY	(MAR)				
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MONTHLY	SUMMARY	(APR)				
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MONTHLY	SUMMARY	(JUN)				
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REA	ADING,	PA	19603		BUILDING 909 -					
AC3			LY-REPORT	**				PAGE	2-	1
	HERM-CI	EN	HERM-CEN			•••••				
	T-CHLR		T-CHLR							
	LOAD		ELECTRIC							
			USE							
	BTU/HR		BTU/HR							
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MONTHLY	SUMMARY	(AUG)								
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MONTHLY	SUMMARY									
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MONTHLY	SUMMARY	(OCT)								
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MONTHLY	SUMMARY									
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REAL AC4	DING,	PA HOURL	19603 LY-REPORT	EZDOE - ELITE SOFTWARE DEVELOPMENT INC UMCS FEASIBILITY STUDY	BUILDING 909 -	YOUTH ACTIVITY	CENTER	PAGE 1-
MMDDHH	HERM-CEN T-CHLR	I	HERM-CEN T-CHLR					*******
	LOAD		ELECTRIC USE					
	BTU/HR		BTU/HR					
	( 1)		(3)					
MONTHLY	SUMMARY (	(JAN)						
MIN		0.	0.					
MX		0.	0.					
SM		0.	0.					
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	SUMMARY (							
MN		0.	0.					
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MONTHLY	SUMMARY (	JUL)						
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	ENTECH	ENGINE	ERING	EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/28/1996 9:34:	25 PDI	RUN	1
REAL	DING,	PA	19603	UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER			_
AC4		= HOUR	LY-REPORT		PAGE	2 -	1
	HERM-CI						-
	T-CHLR		HERM-CEN T-CHLR				
	LOAD		ELECTRIC				
			USE				
	BTU/HR		BTU/HR				
	(	1)	(3)				
MONTHLY	SUMMARY	(AUG)					
MN		0.	0.				
MX		0.	0.				
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MONTHLY	SUMMARY	(SEP)					
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MX		0.	0.				
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MONTHLY	SUMMARY	(OCT)					
MIN		0.	0.				
MX		0.	0.				
SM		0.	0.				
AV		0.	0.				
MONTHLY	SUMMARY	(NOV)					
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	SUMMARY						
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	SUMMARY						
MN		0.		<b>-</b>			
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REA SYS	= HOU	19603 RLY-REPORT		BILITY STUDY		BUILDING 909	- YOUTH ACTIV	5 13:54: 6 SDL RUN VITY CENTER PAGE 1-	
MMDDHH	AHU-1	AHU-1	AHU-1	AHU-1	AHU-2	AHU-2	AHU-2	AHU-2	
	COOLING ELECTRIC KW	TOT HTG COIL PWR BTU/HR	COOLING CAPACITY BTU/HR	HEATING BLECTRIC KW	COOLING ELECTRIC KW	TOT HTG COIL PWR BTU/HR	COOLING CAPACITY BTU/HR	HEATING ELECTRIC KW	
	(47)	(5)	(70)	(46)	(47)	(5)	(70)	(46)	
MONTHLY	SUMMARY (JAN)								
MIN	0.000	-227084.	0.	0.000	0.000	-161178.	0.	0.000	
MX	0.000	0.	246134.	0.000	0.000	0.	280847.	0.000	
SM	0.000	-11481602.	59332576.	0.000	0.000	-8998053.	71282408.	0.000	
AV	0.000	-15432.	79748.	0.000	0.000	-12094.	95810.	0.000	
MONTHLY	SUMMARY (FEB)								
MIN	0.000	-213632.	0.	0.000	0.000	-122970.	0.	0.000	
MX	0.000	٥.	246134.	0.000	0.000	0.	280847.	0.000	
SM	0.000	-6911490.	49130548.	0.000	0.000	-3166562.	55089592.	0.000	
AV	0.000	-10285.	73111.	0.000	0.000	-4712.	81979.	0.000	
MONTHLY	SUMMARY (MAR)								
MN	0.000	-159288.	0.	0.000	0.000	-43306.	0.	0.000	
MIX	0.000	0.	231138.	0.000	0.000	0.	258175.	0.000	
SM	0.000	-2684224.	57947084.	0.000	0.000	-379920.	82549184.	0.000	
AV	0.000	-3608.	77886.	0.000	0.000	-511.	110953.	0.000	
MONTHLY	SUMMARY (APR)								
MIN	0.000	-88569.	0.	0.000	0.000	-25063.	0.	0.000	
MX	0.000	. 0.	236038.	0.000	0.000	0.	253318.	0.000	
SM	0.000	-346767.	53515928.	0.000	0.000	-636903.	116044760.	0.000	
AV	0.000	-482.	74328.	0.000	0.000	-885.	161173.	0.000	
MONTHLY	SUMMARY (MAY)								
MN	0.000	0.	0.	0.000	0.000	0.	0.	0.000	
MX	13.910	0.	218431.	0.000	16.849	0.	245167.	0.000	
SM	927.929	0.	48570480.	0.000	1485.626	0.	78405720.	0.000	
AV	1.247	0.	65283.	0.000	1.997	0.	105384.	0.000	
MONTHLY	SUMMARY (JUN)		=-						
MIN	0.000	0.	0.	0.000	0.000	0.	0.	0.000	
MX	19.554	0.	211444.	0.000	20.709	0.	243451.	0.000	
SM	2611.822	0.	50911996.	0.000	3565.896	0.	85732040.	0.000	
AV	3.628	0.	70711.	0.000	4.953	0.	119072.	0.000	
MONTHLY	SUMMARY (JUL)								
MN	0.000	0.		0.000	0.000	0.	0.	0.000	
MX	18.651	0.	217705.	0.000	20.894	0.	258375.	0.000	
SM	3228.892	0.	47531500.	0.000	4222.454	0.	88710744.	0.000	
AV	4.340	0.	63886.	0.000	5.675	0.	119235.	0.000	

19603 UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER READING. PAGE 2- 1 SYS - HOURLY-REPORT ...... AHU-1 AHU-1 AHU-1 AHU-2 AHU-2 AHU-2 AHU-2 AHU-1 COOLING HEATING COOLING TOT HTG COOLING HEATING COOLING TOT HTG CAPACITY BLECTRIC ELECTRIC COIL PWR CAPACITY ELECTRIC ELECTRIC COIL PWR BTU/HR BTU/HR KW KW BTU/HR BTU/HR ΚW --- (70) ---- (47) ----(5) ---- (46) ---- (47) ----(5) ---- (70) ---- (46) MONTHLY SUMMARY (AUG) 0.000 ٥. 0.000 0.000 0. ٥. 0.000 MN 244606. 20.469 3948.743 ٥. 214373. 0.000 Ο. 0.000 ΜX 81860256. 0.000 54211560. 0.000 SM 3552.984 0. 0. 110027. 72865. 0.000 5.307 Ο. Ο. ΔV 4.776 MONTHLY SUMMARY (SEP) 0.000 Ο. ο. 0.000 0.000 MN 0.000 18.946 0. 0. 0. 210126. 0.000 19.914 244837. 0.000 MX ٥. 48168944. 0.000 2218.226 0. 68964800 0.000 1959.712 SM 95784. 0.000 ΑV 2.722 0. 66901. 0.000 3.081 ٥. MONTHLY SUMMARY (OCT) MN 0.000 -76721. 0. 0.000 0.000 -14422. ο. 0.000 248528. 226044 0.000 0.000 ΜX 12.967 0. 13.118 ٥. -44662. 58474132. -429958. 46590704. 0.000 784.856 SM 528.445 62622. 0.000 1.055 -60. 78594. 0.000 0.710 -578. ΑV MONTHLY SUMMARY (NOV) 0.000 0.000 -77689. 0. 0.000 -126632. 0.000 MN MX 0.000 ٥. 248502. 0.000 0.000 ٥. 255080. 0.000 -1971097. 0.000 -1128064. 59867528. 0.000 SM 0.000 51665132. 0.000 71757. 83149. -2738. 0.000 0.000 -1567. AV 0.000 MONTHLY SUMMARY (DEC) 0.000 0.000 -124368. 0.000 -200320. MN 0.000 0.000 236053. 0.000 0.000 Ο. 269343. 0.000 ΜX -6844629. -7592266. 61832320. SM 0.000 54394200. 0.000 0.000 0.000 73110. 0.000 0.000 -9200. -10205. AV 0.000 YEARLY SUMMARY 0.000 0.000 0.000 -227084. ٥. 0.000 -161178. MN 248502. 0.000 20.894 280847. 0.000 ΜX 19.554 0. -21198792.

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EZDOE - ELITE SOFTWARE DEVELOPMENT INC

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DOE-2.1D 12/ 1/1995 13:54: 6 SDL RUN 1

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ENTECH ENGINEERING DING, PA 19603 DOE-2.1D 12/1/1995 13:54: BUILDING 909 - YOUTH ACTIVITY CENTER UMCS FEASIBILITY STUDY READING, SYS - HOURLY-REPORT PAGE 1- 2 MMDDHH AHU-3 AHU-3 AHU-3 AHU-3 AHU-4 AHU-4 AHU-4 AHU-4 TOT HTG COOLING HEATING COOLING TOT HTG COOLING HEATING COOLING COIL PWR CAPACITY BLECTRIC ELECTRIC COIL PWR CAPACITY ELECTRIC ELECTRIC BTU/HR BTU/HR BTU/HR BTU/HR ---- (47) ----(5) ---- (70) --- (46) --- (47) ----(5) --- (70) ---- (46) MONTHLY SUMMARY (JAN) 0.000 -86663. 0. 0.000 0.000 -86826. ٥. 0.000 MX 0.000 ٥. 88465. 0.000 0.000 0. 88449. 0.000 -5423304. -4029553. 23271946. 0.000 0.000 22024676. 0.000 SM 0.000 -7289. 0.000 0.000 -5416. 29603. 0.000 ΑV 0.000 MONTHLY SUMMARY (FEB) 0.000 -77591. -81145. ٥. 0.000 0.000 0. MN 0.000 88449. 88465. 0.000 0.000 0.000 MX 0.000 -3119560. 18013432. -2190061. 17360596. SM 0.000 0.000 0.000 0.000 26806. 0.000 0.000 25834. 0.000 ΑV -4642. -3259. 0.000 MONTHLY SUMMARY (MAR) 0.000 -59292. 0.000 0.000 -55098. 0.000 MN 0. ٥. 0. 81323. 0.000 0.000 81309. 0.000 ΜX 0.000 -1026427. -554386. 0.000 20300152. 0.000 0.000 20294518. 0.000 ΑV 0.000 -1380. 27285. 0.000 0.000 -745. 27278. 0.000 MONTHLY SUMMARY (APR) 0.000 -26062. ٥. 0.000 0.000 -22275. 0. 0.000 79793. 0.000 79779. 0.000 0.000 MX 0.000 0. 0. -134350. 0.000 18251786. 0.000 0.000 -35835. 18290916. 0.000 SM 0.000 -187. 25350. 0.000 0.000 -50. 25404. 0.000 MONTHLY SUMMARY (MAY) 0.000 0. 0.000 0.000 ٥. 0.000 76797 76783. МX 4.304 0. 0.000 4.429 356.339 0. 0.000 0.000 17240518. 17234478. 0.000 SM 337.560 0. ٥. 23173. 0.000 23165. ΑV 0. 0.479 0. 0.000 0.454 MONTHLY SUMMARY (JUN) 0.000 0. 0. 0.000 0.000 ٥. 0. 0.000 MN 75983. 6.741 75996. 0.000 6.754 0.000 ΜX SM 931.616 ο. 17960150 0.000 932 638 0 17589728 0.000 24945. 0.000 1.295 24430. 0.000 ΑV 1.294 0. 0. MONTHLY SUMMARY (JUL) 0.000 0.000 ٥. 0.000 0.000 6.792 ٥. ٥. MN 0. 78247. 0.000 6.770 78233. 0. 0.000 0. MX

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RZDOE - ELITE SOFTWARE DEVELOPMENT INC

13:54: 6 SDL RUN 1

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/1/1995 13:54: 6 SDL RUN 1 READING, PA 19603 UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER

real Ys	DING, PA = HOUR	19603 LY-REPORT	UMCS FEASI	BILITY STUDY		BUILDING 909	- YOUTH ACTIV	TTY CENTER	PAGE 2
	AHU-3	AHU-3	AHU-3	AHU-3	AHU-4	AHU-4	AHU-4	AHU-4	
	COOLING ELECTRIC KW	TOT HTG COIL PWR BTU/HR	COOLING CAPACITY BTU/HR	HEATING ELECTRIC KW	COOLING ELECTRIC KW	TOT HTG COIL PWR BTU/HR	COOLING CAPACITY BTU/HR	HEATING ELECTRIC KW	
	(47)	(5)	(70)	(46)	(47)	(5)	(70)	(46)	
ONTHLY	SUMMARY (AUG)								
MN	0.000	0.	0.	0.000	0.000	0.	0.	0.000	)
MX	6.661	0.	77049.	0.000	6.675	0.	77036.	0.000	ו
SM	1243.194	0.	18499094.	0.000	1254.314	٥.	18518326.	0.000	)
ΑV	1.671	٥.	24864.	0.000	1.686	0.	24890.	0.000	)
ONTHLY	SUMMARY (SEP)								
MIN	0.000	0.	0.	0.000	0.000	0.	0.	0.000	)
MX	6.488	0.	75523.	0.000	6.498	0.		0.000	
SM	681.458	0.	16825792.	0.000	705.135	0.	16832894.	0.000	)
AV	0.946	0.	23369.	0.000	0.979	0.	23379.	0.000	)
	SUMMARY (OCT)								
MN	0.000	-30630.	0.	0.000	0.000	-26719.	0.	0.000	
MX	4.228	0.	78285.	0.000	4.362	0.	78271.	0.000	)
SM	194.945	-199803.	16447790.	0.000	210.003	-116466.		0.000	)
AV	0.262	-269.	22107.	0.000	0.282	-157.	22093.	0.000	)
ONTHLY	SUMMARY (NOV)								
MN	0.000	-58884.	0.	0.000	0.000	-51841.	0.	0.000	
MX	0.000	٠. ٠.	82675.	0.000	0.000	0.	82552.	0.000	)
SM	0.000	-1266579.	17893458.	0.000	0.000	-613145.	17937486.	0.000	)
AV	0.000	-1759.	24852.	0.000	0.000	-852.	24913.	0.000	)
MONTHLY	SUMMARY (DEC)								
MN	0.000	-74367.	0.	0.000	0.000	-76502.	0.		
MX	0.000	0.	84841.	0.000	0.000	0.		0.000	
SM	0.000	-4081100.	20220812.	0.000	0.000	-2693709.		0.000	
AV	0.000	-5485.	27179.	0.000	0.000	-3621.	25884.	0.000	)
	SUMMARY						•		
MN	0.000	-86663.	0.		0.000	-86826.	0.	0.000	
MX	6.792	0.			6.770	0.		0.000	
SM	4535.778	-15251123.	221782544.	0.000	4600.798		218065504.	0.000	
AV	0.518	-1741.	25318.	0.000	0.525	-1168.	24893.	0.000	)

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/1/1995 13:54: 6 PDL RUN 1
READING, PA 19603 UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER
REPORT- FV-A EQUIPMENT SIZES WEATHER FILE- BALTIMORE, MD

NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER
EQUIPMENT SIZE INSTD SIZE INSTD SIZE INSTD SIZE INSTD SIZE INSTD SIZE INSTD (MBTU/H) AVAIL (MBTU/H) AVAIL (MBTU/H) AVAIL (MBTU/H) AVAIL (MBTU/H) AVAIL (MBTU/H) AVAIL EQUIPMENT SIZE INSTD HW-BOILER 1.100 1 1

HERM-REC-CHLR 0.100 1 1 0.100 1 1 0.300 1 1 0.400 1 1

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/1/1995 13:54:6 PDL RUN 1
READING, PA 19603 UNCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER
REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY WEATHER FILE- BALTIMORE, MD

					s	ITE E	NERG	t				*	SOURCE
	2	3	4	5	6	7	8	9	10	11	12	13 *	14
MONTH	TOTAL HEAT LOAD	TOTAL COOLING LOAD	TOTAL ELECTR LOAD	RCVRED ENERGY	WASTED RCVRABL ENERGY	FUEL INPUT COOLING	ELEC INPUT COOLING	FUEL INPUT HEATING	BLEC INPUT HEATING	FUEL INPUT ELECT	TOTAL FUEL INPUT	TOTAL * SITE * ENERGY *	SOURCE
JAN	36.3	0.0	28.9 8.5E	0.0	0.0	0.0	0.0 0.0E	58.3	4.6 1.3E	0.0	58.3	87.2 *	145.1
FEB	20.8	0.0	24.7 7.2E	0.0	0.0	0.0	0.0 0.0E	33.7	3.2 0.9E	0.0	33.7	58.5 *	108.0
MAR	9.9	0.0	29.1 8.5E	0.0	0.0	0.0	0.0 0.0E	16.3	2.4 0.7E	0.0	16.3	45.3 *	103.6
APR	5.4	0.0	27.8 8.1E	0.0	0.0	0.0	0.0 0.02	8.8	2.0 0.6E	0.0	8.8	36.6 *	92.2
MAY	0.0	0.0	35.2 10.3E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	0.0	35.2 *	105.8
NUL	0.0	0.0	53.4 15.7E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0B	0.0	0.0	53.4 *	160.5
JUL	0.0	0.0	57.2 16.8E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0£	0.0	0.0	57.2 *	171.8
AUG	0.0	0.0	61.0 17.9E	0.0	0.0	0.0	0.0 0.0	0.0	0.0 0.0E	0.0	0.0	61.0 * *	183.2
SEP	0.0	0.0	43.3 12.7E	0.0	0.0	0.0	0.0E	0.0	0.0 0.0E	0.0	0.0	43.3 *	130.1
OCT	3.2	0.0	29.8 8.7E	0.0	0.0	0.0	0.0E	5.2	1.1 0.3E	0.0	5.2	35.0 *	94.7
NOV	9.7	0.0	25.1 7.4E	0.0	0.0	0.0	0.0 0.0E	15.8	2.4 0.7E	0.0	15.8	41.0 *	91.3
DEC	27.2	0.0	27.7 8.1E	0.0	0.0	0.0	0.0 0.0E	43.9	3.9 1.1E	0.0	43.9	71.6 * *	127.1
	112.5	0.0	443.3 129.8E	0.0	0.0	0.0	0.0 0.0E	182.1	19.6 5.7E	0.0	182.1	625.4 *	1513.3

NOTE -- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES FOLLOWED BY E ARE IN MWH (THOUSANDS OF KWH) ENTECH ENGINEERING EZODE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/1/1995 13:54: 6 PDL RUN 1
READING, PA 19603 UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER

REPORT- PS-B MONTHLY PEAK AND TOTAL ENERGY USE WEATHER FILE- BALTIMORE, MD

UTILITY-ELECTRICITY NATURAL-GAS MO TOTAL (MBTU) 28.908 58.316 127.515 31/11 JAN PEAK (KBTU) 799.826 DY/HR 31/ 7 TOTAL (MBTU) 24.721 33.729 127.515 FEB PEAK (KBTU) 670.692 14/ 7 DY/HR TOTAL (METU) 29.089 16.254 MAR PEAK (KBTU) 120.094 463.190 7/8 DY/HR 7/7 27.758 TOTAL (MBTU) 8.837 253.927 APR PEAK (KBTU) 110.591 11/8 11/7 DY/HR TOTAL (MBTU) 35.215 0.000 MAY PEAK (KBTU) 230.088 0.000 6/16 DY/HR 31/1 TOTAL (MBTU) 53.440 0.000 284.216 29/16 JUN PEAK (KBTU) 0.000 30/1 DY/HR TOTAL (MBTU) 57.216 0.000 JUL PEĄK (KBTU) 282.475 0.000 DY/HR 25/14 31/ 1 TOTAL (MBTU) 61.009 0.000 PEAK (KBTU) AUG 282.311 0.000 DY/HR 18/16 31/ 1 TOTAL (MBTU) 43.320 0.000 PEAK (KBTU) DY/HR. 1/16 30/ 1 TOTAL (MBTU) 29.813 5.214 oct PEAK (KBTU) 218.029 242.130 DY/HR 13/16 24/ 7 TOTAL (MBTU) 25.114 15.837 123.800 28/8 512.407 28/ 7 NOV PEAK (KBTU) DY/HR TOTAL (MBTU) 27,693 43.916 127.515 DEC PEAK (KBTU) 663.028 DY/HR ONE YEAR 443.295 182.104

284.216

799.826

USE/PEAK

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 UMCS FEASIBILITY STUDY
REPORT- PS-D PLANT LOADS SATISFIED

T INC DOE-2.1D 12/ 1/1995 13:54: 6 PDL RUN 1
BUILDING 909 - YOUTH ACTIVITY CENTER
WEATHER FILE- BALTIMORE, MD

KOPVAT- FOUR AMAIL MORAU GRADATAM

MBTU SUPPLIED PCT OF TOTAL LOAD HEATING LOADS HW-BOILER 112.5 100.0 222402742788 2222222222222222 . 100.0 LOAD SATISFIED 112.5 TOTAL LOAD ON PLANT 112.5 ELECTRICAL LOADS MBTU SUPPLIED PCT OF TOTAL LOAD -----443.3 ELECTRICITY 443.3 100.0 LOAD SATISFIED

443.3

TOTAL LOAD ON PLANT

SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISPIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
HEATING LOADS ELECTRICAL LOADS	112.5 443.3	112.5 443.3	0.000	0.000	0

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/1/1995 13:54:6 PDL RUN 1
READING, PA 19603 UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER
REPORT- PS-H BQUIPMENT USE STATISTICS WEATHER FILE- BALTIMORE, MD

BQUIPMBNT	AVG OPER RATIO	MAX LOAD (MBTU)	MON DAY HR	SIZE OPER (MBTU) HRS				
HW-BOILER	0.022	0.575	1 31 7	1.100 4728				
HERM-REC-CHLR	0.000	0.000	0 0 0	0.100 0	0.100 0	0.300 0	0.400 0	

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/1/1995 13:54: 6 PDL RUN 1
READING, PA 19603 UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER
REPORT- PS-I EQUIPMENT LIFE CYCLE COSTS WEATHER FILE- BALTIMORE, MD

E Q U I	PMENT T	гот	A L S				
HW-BOILER		43.3					
	NOMINAL SIZE (MBTU)			1.100			
	NUMBER INSTALLED			1			
	FIRST COST (K\$)		37.8	37.8			
	ANNUAL COST (K\$)		0.9	0.9			
	CYCLICAL COST (K\$)		4.6	4.6			
	TOTAL (K\$)			43.3			
HERM-REC-CE	ILR	38.5					
	NOMINAL SIZE (MBTU)			0.100	0.100	0.300	0.400
	NUMBER INSTALLED			1	1	1	1
	FIRST COST (K\$)		32.1	4.9	4.9	10.1	12.3
	ANNUAL COST (K\$)		6.4	1.4	1.4	1.7	1.8
	CYCLICAL COST (K\$)		0.0	0.0	0.0	0.0	0.0
	TOTAL (K\$)			6.2	6.2	11.9	14.1
POTITI	MENT TOTAL	81 8					

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/1/1995 13:54: 6 PDL RUN 1 READING, PA 19603 UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE WEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE MBTU - ELECTRICITY NATURAL-GAS CATEGORY OF USE SPACE HEAT 9.57 182.10 SPACE COOL 130.33 0.00 HVAC AUX 73.32 0.00 DOM HOT WTR 0.00 0.00 AUX SOLAR 0.00 0.00 LIGHTS 210.31 VERT TRANS 0.00 0.00 MISC EQUIP 19.75 -----TOTAL 443.29 182.10

TOTAL SITE ENERGY 625.40 MBTU 31.8 KBTU/SQFT-YR GROSS-AREA 31.8 KBTU/SQFT-YR NET-AREA 77.0 KBTU/SQFT-YR NET-AREA 77.0 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 10.5 PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.0

NOTE ELECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

REA		19603	EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/ 1/1995 13:54: UMCS FEASIBILITY STUDY BUILDING 909 - YOUTH ACTIVITY CENTER	RUN 1
Bl		LY-REPORT		1- 1
MMDDHH	HW-BOILE	HW-BOILE	***************************************	 
		R		
	LOAD	ELECTRIC USE		
	BTU/HR	BTU/HR		
	( 1)	(3)		
MONTHLY	SUMMARY (JAN)			
MN	3803.	335.		
MX	574691.			
SM	36259208.			
AV	48735.			
MONTHLY	SUMMARY (FEB)			
MN	3803.	335.		
MX	462636.	24200.		
SM	20806412.	1777791.		
AV	30962.			
MONTHLY	SUMMARY (MAR)			
MIN	3803.	335.		
MX	286547.	24200.		
SM	9949702.	874558.		
AV	13373.			
MONTHLY	Y SUMMARY (APR)			
MIN	3803.	335.		
MX	155389.	13674.		
SM	5407864.			
AV	7511.	661.		
MONTHLY	Y SUMMARY (MAY)			
MIN	0.	0.		
мx	0.			
SM	0.	0.		
AV	0.	0.		
	Y SUMMARY (JUN)			
MN		0.		
MX	0.			
SM	0.	0.		
AV	0.	0.		
MONTHL	Y SUMMARY (JUL)			
MN	٥.	0.		
MX	0.	0.		
SM	0.	0.		

	ENTECH	ENGINBERING	EZDOE - ELITE SOFTWARE DEVELOPMENT IN	C DOB-2.1D 12/1/1995 13:54: 6 PDL RU	IN
	READING,		UMCS FEASIBILITY STUDY	BUILDING 909 - YOUTH ACTIVITY CENTER	
B1		= HOURLY-REPOR		PAGE 2-	
	HW-BOIL	E HW-BOI	E		
	R				
	LOAD	USE	3		
	BTU/HR	BTU/HR			
	( 1	)(	)		
MONTE	ILY SUMMARY	(AUG)			
M	7	0.	0.		
MD	C	0.	0.		
SN	1	0.	0.		
AV.		0.	0.		
MONTE	ILY SUMMARY	(SEP)			
M	•	0.	0.		
MO	<	0.	0.		
SI	4	٥.	0.		
ΑV		0.	0.		
MONTE	HLY SUMMARY	(OCT)			
M	N .	0.	0.		
MD	K 148	170. 13	39.		
St		613. 280			
A7			77.		
MONT	ELY SUMMARY	(NOV)			
M	v 3	803.	35.		
MD		886 24	00.		
S	M 9705	691. 849	47.		
A <sup>1</sup>					
MONT	HLY SUMMARY	(DEC)			
M					
M	X 456	047. 24	00.		
	M 27151				
	v 36	493. 3			
YEAR	LY SUMMARY		•		
M2	N	0.	0.		
M	X 574	691. 24	00.		
	M 112470	488. 9568	24.		
Si					

# FT. MEADE, MARYLAND

Building:

940

Square feet

31,720

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Wood Siding	0.93
Air Space	1.10
Gyp Board	0.56
Inside Surface	0.68
Total R-Value	3.44
Total U-Value	0.29

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Shingles	0.44
Wood Deck	0.93
Air Space	1.10
Gyp Board	0.56
Inside Surface	0.61
Total R-Value	3.81
Total U-Value	0.26

Calculated Total Area	
No. of Floors	1
Avg. Floor to Floor Height	14
No. of Basement Levels	
Gross Floor Area	31720
Roof Area	32000
Estimated Infiltration (cfm)	5300
Gross Wall Area	16406
Door Area	170
Gross Window Area	170
Other	1000
Net Wall Area	15065

Window and Door	
	U-Value
Window Single Pane W/Storm	
Window Single Pane Wo/Storm	1.00
Window Double Pane	
Skylight	
Glass Block	
Other	
Door Type 1	0.50
Door Type 2	1.00
Door Type 3	
	***************************************

UoAo = (15065\*0.29) + (32000\*0.26) + (170\*0.5) + (170\*1.0) + (1000\*1.0) = 13944

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

**BUILDING NO. 940** 

Page 1 of 1

Table   Tabl	EQUIPMENT				SYSTEM NUMBER	IBER			
AHU-1   Boller   Unit Hirs     1		-	2	9	4	5	9	7	8
1   1   1   1   1   1   1   1   1   1	Equipment Name	AHU-1	Boiler	Unit Htrs					
1   Offices   5200   4000	COOLING:								
1   1   1   1   1   1   1   1   1   1	Type of Cooling	-							
Offices   E200   E200	Air Side	-							
5200	Location in Building	Offices							
11/2   1/2	Area Sq. Feet	5200							
11/2	Supply CFM	4000							
10   10   3/4   2   2   2   4   2   4   2   4   4	Supply Fan HP	1 1/2							and define the result of the day of the property of the contract of the contra
10   10   10   10   10   10   10   10	O.A. CFM or %	%0							
10   3/4	Return CFM								
10   10   10   10   10   10   10   10	Return Fan HP								
3/4	Chiller Tonnage	9							
Type of Cooling	Tower or Condenser Fan HP	3/4		-					
Type of Cooling	Condenser Pump HP								
2	Chilled Water Pump HP								
2	HEATING:								
2	Type of Heating		2						
1530/1180   1530	Source	2	4	2					
Type of Cooling  (4) Water Cooled Chiller (5) Central Plant Supplied (6) Other Air Side (7) Natural Gas (8) Constant Volume Reheat (9) Heating and Ventiliating (9) Central Plant Steam (1) Natural Gas (1) Natural Gas (2) Central Plant Steam (3) Central Plant Hot Water (4) Water Converter (5) Constant Volume Reheat (6) Heating and Ventiliating (9) Central Plant Hot Water	МВТИН		1530/1180						
1/3	Hot Water Pump HP								
Type of Cooling  (4) Water Cooled Chiller (5) Central Plant Supplied (6) Other  Air Side (4) VAV w/ Reheat (5) Constant Volume Reheat (6) Heating and Ventilating (9) Heating and Ventilating (1) Central Plant Steam (3) Central Plant Hot Water	Condensate Pump HP		1/3						
Type of Cooling  (4) Water Cooled Chiller (5) Central Plant Supplied (6) Other  Air Side (4) VAV w/ Reheat (5) Constant Volume Reheat (5) Constant Volume Reheat (6) Heating and Ventilating (9) Heating and Ventilating (1) Central Plant Steam (3) Central Plant Steam (3) Central Plant Steam (3) Central Plant Hot Water	ADDITIONAL:								
Type of Cooling  (4) Water Cooled Chiller (5) Central Plant Supplied (6) Other  Air Side (4) VAV w/ Reheat (5) Constant Volume Reheat (6) Heating and Ventilating (6) Heating and Ventilating (7) Central Plant Steam (8) Constant Volume Reheat (9) Central Plant Steam (9) Central Plant Steam (9) Central Plant Hot Water	Aux. HP Cooling								
Type of Cooling         Type of Heating           (4) Water Cooled Chiller         (1) Boiler Hot Water           (5) Central Plant Supplied         (2) Boiler Steam           (6) Other         (3) Steam to Hot Water Converter           Air Side         Heating Sourc           (4) VAV w/ Reheat         (1) Natural Gas           (5) Constant Volume Reheat         (2) Central Plant Steam           (6) Heating and Ventilating         (3) Central Plant Hot Water	Aux. HP Heating								
Type of Cooling         Type of Heatin           (4) Water Cooled Chiller         (1) Boiler Hot Water         Type of Heating Source           (5) Central Plant Supplied         (2) Boiler Steam         (3) Steam to Hot Water Converter           Air Side         Heating Source           (4) VAV w/ Reheat         (1) Natural Gas           (5) Constant Volume Reheat         (2) Central Plant Steam           (6) Heating and Ventilating         (3) Central Plant Hot Water	Operating Schedule Hrs./Week								
Type of Cooling         Type of Heatin           (4) Water Cooled Chiller         (1) Boiler Hot Water           (5) Central Plant Supplied         (2) Boiler Steam           (6) Other         (3) Steam to Hot Water Converter           Air Side         Heating Sourc           (4) VAV w/ Reheat         (1) Natural Gas           (5) Constant Volume Reheat         (2) Central Plant Steam           (6) Heating and Ventilating         (3) Central Plant Hot Water									
(4) Water Cooled Chiller (5) Central Plant Supplied (6) Other  Air Side (4) VAV w/ Reheat (5) Constant Volume Reheat (6) Heating and Ventilating	Type	of Cooling				Ž	be of Heating		
(5) Central Plant Supplied (2) Boiler Steam (6) Other  Air Side  (4) VAV w/ Reheat (5) Constant Volume Reheat (6) Heating and Ventilating		(4) Water Coole	d Chiller		(1) Boiler Hot Water			(4) Furnace	
Air Side  Air Side  (4) VAV w/ Reheat (5) Constant Volume Reheat (6) Heating and Ventilating	(2) Water Cooled DX	(5) Central Plan	t Supplied		(2) Boiler Steam				
Air Side Heating Source  (4) VAV w/ Reheat  (5) Constant Volume Reheat  (6) Heating and Ventilating  (9) Heating and Ventilating	(3) Air Cooled Chiller	(6) Other	•		(3) Steam to Hot Wa	ter Converter			
(4) VAV w/ Reheat (5) Constant Volume Reheat (6) Heating and Ventilating (9) Central Plant Hot Water		Air Side				He	ating Source	6	
(5) Constant Volume Reheat (6) Heating and Ventilating	(1) Single Zone	(4) VAV w/ Reh	eat		(1) Natural Gas			(4) Oil	
(6) Heating and Ventilating	(2) Multi-Zone	(5) Constant Vo	lume Reheat		(2) Central Plant Ste	am		(5) Electric	
	(3) VAV	(6) Heating and	Ventilating		(3) Central Plant Hot	Water			

### EMCS Annual Energy Savings Summary Report

Base: FTMEADE Building: 940

Case: 1

Description: MORALE SUPPORT OFFICES

Fuel Type: Fuel oil, distillate #2

Heating Value: 138,700 Btu/gal

### Caution

## Annual Energy Savings Table for Single Zone DX-A/C

Description: AHU-1				=====
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Duty Cycling Demand Limiting Run Time Recording Safety Alarm	122.338 0.000 0.000 0.000 0.000	4,472 1,047 0 0	0.0 0.0 0.3 0.0	0 0 0 0 2 2
Subtotals Heating Value	122.338 / 138,700	5,519 Btu/gal	0.3	4
Totals	882 gal/yr	5,519 kWh/yr	0.3 kW	4 mh/yr

940.SM1 23 Jan 1996 11:28:34

# Annual Energy Savings Table for Steam Unit Heater

Description: STEAM UNIT HE	======================================			
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Run Time Recording Safety Alarm	347.411 0.000 0.000	0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	347.411 138,700	0 Btu/gal	0.0	4
Totals	2,505 gal/yr	0 kWh/yr	0.0 kW	4 mh/yr

#### EMCS Annual Energy Savings for Building 940

/=====================================	Value	Units
Fuel oil, distillate #2 Electrical Energy Electrical Demand Reduction Labor Savings	3,387 5,519 0.3 8	gal/yr kWh/yr kW mh/yr

**Building:** 

1978

1976

Square feet

43,547

11,724

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Concrete Block	1.72
Air Space	1.10
Plaster	0.56
Inside Surface	0.68
Total R-Value	4.23
Total U-Value	0.24

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Built-up Roof	0.33
1 1/2" Insulation	9.00
Metal Deck	0.00
Air Space	1.10
Acoustical Tile	1.89
Inside Surface	0.61
Total R-Value	13.10
Total U-Value	0.08

Calculated Total Area	
No. of Floors	1
Avg. Floor to Floor Height	16
No. of Basement Levels	
Gross Floor Area	55271
Roof Area	55271
Estimated Infiltration (cfm)	5000
Gross Wall Area	19780
Door Area	702
Gross Window Area	334
Other	
Net Wall Area	18744

Window and Door	
	U-Value
Window Single Pane W/Storm	
Window Single Pane Wo/Storm	
Window Double Pane	0.55
Skylight	
Glass Block	
Other	
Door Type 1	1.00
Door Type 2	
Door Type 3	
• •	

UoAo = (18744\*0.24) + (55271\*0.08) + (702\*1.0) + (334\*0.55) = 9806

**BUILDING NO. 1978, 1976** 

Page 1 of 1

EQUIPMENT				SYSTEM	SYSTEM NUMBER			
	1	2	3	4	5	9	7	8
Equipment Name	AHU-1	AHU-2	AHU-3	Boiler	S-W Conv	Boiler		
COOLING:								
Type of Cooling	1	-						
Air Side	ဗ	က	5					
Location in Building	1/2 Bldg 1978	1/2 Bldg 1978	Info Center	1978 & 1976		Info Center		
Area Sq. Feet	10000	17500						
Supply CFM	7800	11000						
Supply Fan HP	10	10	10					
O.A. CFM or %	20%	12%	-					
Return CFM								
Return Fan HP	5	5						
Chiller Tonnage	20	20						
Tower or Condenser Fan HP								
Condenser Pump HP								
Chilled Water Pump HP								
HEATING:				(2)				
Type of Heating				2	က	_		
Source				-	2	-		
МВТИН				940/765		945		
Hot Water Pump HP					_	_		
Condensate Pump HP				1/2				
ADDITIONAL:								
Aux. HP Cooling								
Aux. HP Heating								
Operating Schedule Hrs./Week								
Type	Type of Cooling					Type of Heating		
(1) Air Cooled DX	(4) Water Cooled Chiller	Chiller		(1) Roiler Hot Mater		, , , , , , , , , , , , , , , , , , ,	(A) Furnace	
(2) Water Cooled DX	(5) Central Plant	Supplied		(2) Boiler Steam			1) - 411800	
(3) Air Cooled Chiller	(6) Other			(3) Steam to Ho	(3) Steam to Hot Water Converter	-		
	Air Side				Ĭ	Heating Source		
(1) Single Zone	(4) VAV w/ Reheat	aat		(1) Natural Gas			(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	ume Reheat		(2) Central Plant Steam	t Steam	•	(5) Electric	
(3) VAV	(b) Heating and	Ventilating		(3) Central Plant Hot Water	t Hot Water			

G:PROJECTSM130.07/SS/1978/EQUIPMNT.WK4

#### EMCS Annual Energy Savings Summary Report

Base: FTMEADE

Building: 1978 Case: 1

Description:

Fuel Type: Natural gas (methane) Heating Value: 1,031 Btu/cf

#### Caution

#### Annual Energy Savings Table for Terminal Reheat AHU

Description: AHU-3			=========	
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Demand Limiting Day/Night Setback Run Time Recording Safety Alarm	0.000 105.222 0.000 0.000	0 0 0 0 0	1.5 0.0 0.0 0.0	0 0 2 2
Subtotals Heating Value /	105.222 1,031	0 Btu/cf	1.5	4
Totals	102,059 cf /yr	0 kWh/yr	1.5 kW	4 mh/yr

Annual Energy Savings Table for Variable Air Volume AHU

Description: AHU-1				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Demand Limiting Day/Night Setback Vent/Recirculation Run Time Recording Safety Alarm	0.000 65.764 26.960 0.000 0.000	0 305 0 0	1.5 0.0 0.0 0.0 0.0	0 0 0 2 2
Subtotals Heating Value	92.724 / 1,031	305 Btu/cf	1.5	4
Totals	89,936 cf /yr	305 kWh/yr	1.5 kW	4 mh/yr

# Annual Energy Savings Table for Variable Air Volume AHU

Description: AHU-2				<b></b>
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Demand Limiting Day/Night Setback Vent/Recirculation Run Time Recording Safety Alarm	0.000 115.087 22.812 0.000 0.000	0 534 0 0 0	1.5 0.0 0.0 0.0 0.0	0 0 0 0 2 2
Subtotals Heating Value /	137.899	534 Btu/cf	1.5	4
Totals	133,753 cf /yr	534 kWh/yr	1.5 kW	4 mh/yr

Annual Energy Savings Table for Steam Unit Heater

mmaar 2.10-37 5	=======	=======================================	========	======
Description: 1976 STEAM U	NIT HEATERS		=========	======
Strategy	MBtu/yr	kWh/yr	kW =	mh/yr ======
Day/Night Setback Run Time Recording Safety Alarm	144.566 0.000 0.000	0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value	144.566 / 1,031	0 Btu/cf	0.0	4
Totals	140,219 cf /yr	0 kWh/yr	0.0 kW	4 mh/yr ======
\	=========	=========		

Annual Energy Savings Table for Steam Boiler

<sup>′</sup> =============	=========	=========	=============	========	====
Description:			=======================================		====
Strategy		MBtu/yr	kWh/yr	kW mh ========	/yr ====
=======================================			=======:	=	====
====================================	Totals	0.000 MBtu/yr	0 kWh/yr	0.0 kW mh	0 1/yr
 	========	==========	=======================================	=========	====

Annual Energy Savings Table for Hot Water Boiler

			======
MBtu/yr	kWh/yr	kW	mh/yr ======
75.600	0	0.0	0
0.000	0	0.0	2
0.000	0	0.0	2
75.600	0	0.0	4
1,031	Btu/cf		======
73,327	0	0.0	4
cf /yr	kWh/yr	kW	mh/yr
	75.600 0.000 0.000 75.600 1,031	75.600 0 0.000 0 0.000 0 75.600 0 1,031 Btu/cf	75.600 0 0.0 0.000 0 0.0 0.000 0 0.0 75.600 0 0.0 75.600 0 0.0 1,031 Btu/cf

Annual Energy Savings Table for Steam/Hot Water Converter

Description: CONVERTOR				======
Strategy	MBtu/yr	kWh/yr	**************************************	mh/yr
Day/Night Setback Hot Water OA Reset Run Time Recording Safety Alarm	180.851 150.400 0.000 0.000	0 0 0 0	0.0 0.0 0.0 0.0	0 0 2 2
Subtotals Heating Value /	331.251	0 Btu/cf	0.0	4
Totals	321,291 cf /yr	0 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Air Cooled DX Compressor

Description: DX CONDENSING	UNIT			=====
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Duty Cycling Demand Limiting Run Time Recording Safety Alarm	0.000 0.000 0.000 0.000 0.000	3,925 4,655 0 0	0.0 0.0 1.5 0.0	0 0 0 0 2 2
Totals	0.000 MBtu/yr	8,580 kWh/yr	1.5 kW	4 mh/yr

Annual Energy Savings Table for Lighting Control

Description: LIGHTING				=====
Strategy	MBtu/yr	**************************************	kW	mh/yr
Lighting Control	0.000	199,680	0.0	0
Totals	0.000 MBtu/yr	199,680 kWh/yr	0.0 kW	0 mh/yr

#### EMCS Annual Energy Savings for Building 1978

/=====================================	Value	Units
Natural gas (methane) Electrical Energy	860,585 209,099	cf /yr kWh/yr
Electrical Demand Reduction Labor Savings	6.0 28	kW mh/yr

**Building:** 

2212

Square feet

9.056

Building: 2212		Square feet 9,056	
Exterior Wall		Exterior Roof	
Components	R-Value	Components	R-Value
Outside Surface	0.17	Outside Surface	0.17
Vinyl Siding	0.61	Shingles	0.44
Wood Siding	0.93	Insulation	6.00
Air Space	1.10	Wood Deck	0.93
Plaster	0.56	Plaster	0.56
Inside Surface	0.68	Inside Surface	0.61
Total R-Value	4.05	Total R-Value	8.71
Total U-Value	0.25	Total U-Value	0.11
Calculated Total Area		Window and Door	
No. of Floors	1		U-Value
Avg. Floor to Floor Height	10	Window Single Pane W/Storm	0.60
No. of Basement Levels		Window Single Pane Wo/Storm	-
Gross Floor Area	9056	Window Double Pane	
Roof Area	9100	Skylight	
Estimated Infiltration (cfm)	1200	Glass Block	
Gross Wall Area	9400	Other	
Door Area	130	Door Type 1	0.50
Gross Window Area	450	Door Type 2	
Other		Door Type 3	
Net Wall Area	8820	·	

UoAo = (8820\*0.25) + (9100\*0.11) + (450\*0.6) + (130\*0.5) = 3541

**BUILDING NO. 2212** 

Page 1 of 1

EQUIPMENT				SYSTEM NUMBER	MBER			
	-	2	3	4	5	9	7	8
Equipment Name	AHU-1	AHU-2	HP-1					
COOLING:								
Type of Cooling		-	 	•				
Air Side	,	_	_					
Location in Building	1/2 Bldg	1/2 Bldg	Exec Off					
Area Sq. Feet	3900	3800	009					
Supply CFM	2000	4200	009					
Supply Fan HP	11/2	1 1/2	3/4					
O.A. CFM or %	%0	%0	%0					
Return CFM								
Return Fan HP								
Chiller Tonnage								
Tower or Condenser Fan HP								
Condenser Pump HP			THE REPORT OF THE PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE					
Chilled Water Pump HP								
HEATING:								
Type of Heating								
Source	2	5	5					
МВТОН								
Hot Water Pump HP								
Condensate Pump HP								
ADDITIONAL:								
Aux. HP Cooling		4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						
Aux. HP Heating								
Operating Schedule Hrs. Week								
Type	Type of Cooling				Į×Į	Type of Heating		
(1) Air Cooled DX	(4) Water Cooled Chiller	d Chiller		(1) Boiler Hot Water			(4) Furnace	
(2) Water Cooled DX	(5) Central Plant	t Supplied		(2) Boiler Steam				
(3) Air Cooled Chiller	(6) Other			(3) Steam to Hot Water Converter	ater Converter			
A	Air Side				He	Heating Source	ð	
(1) Single Zone	(4) VAV w/ Reheat	eat		(1) Natural Gas	A MARIE AND A STATE OF THE PARTY OF THE PART		(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	lume Reheat		(2) Central Plant Steam	eam		(5) Electric	
(3) VAV	(6) Heating and	Ventilating		(3) Central Plant Hot Water	ot Water	•		
G:VPROJECTSW130.07\SS\2212\EQUIPMNT\WK4								

#### EMCS Annual Energy Savings Summary Report

Base: FTMEADE Building: 2212

Case: 1

Description: ADMINISTRATIVE

Fuel Type: Electricity

Heating Value: 3,413 Btu/kWh

#### Caution

\_\_\_\_\_\_\_ The ESA program makes no attempt to exclude incompatible strategies. It is the user's responsibility to select all appropriate strategies. 

#### Annual Energy Savings Table for Single Zone DX-A/C

Description: AHU-1				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop	0.000	377	0.0	0
Run Time Recording	0.000	0	0.0	2
Safety Alarm	0.000	0	0.0	2
Totals	0.000	377	0.0	4
	MBtu/yr	kWh/yr	kw	mh/yr

#### Annual Energy Savings Table for Single Zone DX-A/C

Description: HP-1 HEAT PUMP	)			
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Run Time Recording Safety Alarm	6.857 0.000 0.000	895 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	6.857 3,413	895 Btu/kWh	0.0	4
Totals	2,009 kWh/yr	895 kWh/yr	0.0 kw	4 mh/yr

Annual Energy Savings Table for Single Zone DX-A/C

Description: AHU-2				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Run Time Recording Safety Alarm	0.000 0.000 0.000	377 0 0	0.0 0.0 0.0	0 2 2
Totals	0.000 MBtu/yr	377 kWh/yr	0.0 kW	===== 4 mh/yr

Annual Energy Savings Table for Electric Radiation

Description: ELECTRIC FIN T	:======: :UBE 			
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback	0.000	25,408	0.0	0 2 2
Run Time Recording	0.000	0	0.0	
Safety Alarm	0.000	0	0.0	
Totals	0.000	25,408	0.0	4
	MBtu/yr	kWh/yr	kW	mh/yr

Annual Energy Savings Table for Lighting Control

Description: lighting		:==========	========	=====
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Lighting Control	0.000	22,464	0.0	0
Totals	0.000 MBtu/yr	22,464 kWh/yr	0.0 kW	0 mh/yr

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## EMCS Annual Energy Savings for Building 2212

Description	======================================	Units
Electrical Energy Electrical Demand Reduction Labor Savings	· 51,531 0.0 16	kWh/yr kW mh/yr

**Building:** 

2220

Square feet

11,520

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Concrete Block	1.72
Inside Surface	0.68
Total R-Value	2.57
Total U-Value	0.39

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Built-up Roof	0.44
Wood Deck	0.93
3 1/2" Batt Insulation	11.00
Air Space	1.10
Gyp Board	0.56
Inside Surface	0.61
Total R-Value	14.81
Total U-Value	0.07

Calculated Total Area	
No. of Floors	1
Avg. Floor to Floor Height	16
No. of Basement Levels	
Gross Floor Area	11520
Roof Area	14400
Estimated Infiltration (cfm)	2300
Gross Wall Area	7520
Door Area	300
Gross Window Area	1500
Other	
Net Wall Area	5720

Window and Door	
	U-Value
Window Single Pane W/Storm	
Window Single Pane Wo/Storm	1.00
Window Double Pane	
Skylight	
Glass Block	
Other	
Door Type 1	1.00
Door Type 2	
Door Type 3	
Door Type 3	

UoAo = (5720\*0.39) + (14400\*0.07) + (300\*1.0) + (1500\*1.0) = 5038.8

BUILDING NO. 2220

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1	FOLIPMENT				SYSTEM NUMBER	NUMBER			
Name   Unit Hirs   A/C-1   HV-1   Boiler		-	2	3	4	5	9	7	8
Building   1	Equipment Name	Unit Htrs	A/C-1	HV-1	Boiler				
1	COOLING:								
Shop   Office   Off	Type of Cooling		-						
uilding Shop Office Shop 4000 4000 4000 4000 4000 4000 4000 40	Air Side		-	ၑ					
Figure   F	Location in Building	Shop	Office	Shop					
HP	Area Sq. Feet	5220	2300	4000					
19	Supply CFM		1200	2000					
%         10%         20%         Person	Supply Fan HP		-	1 1/2					
HP   HP   HP   HP   HP   HP   HP   HP	O.A. CFM or %		10%	20%					
House   Hous	Return CFM								
Pare Fan HP	Return Fan HP							A	
Parison Fan HP   Parison Fan HP   Parison Fan HP     1960/1155	Chiller Tonnage								
Part	Tower or Condenser Fan HP								1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
gg         2         2         1         2         2         1         2         2         2	Condenser Pump HP								
g         2         2         1960/1155	Chilled Water Pump HP								
g         2         1	HEATING:								
1960/1155   1960	Type of Heating	2			2				
Phoening He   Phoening   Phoening Heating and Ventilating     1/3	Source	2			-				
173   173   175	МВТИН				1960/1155				
1/3   1/3     1/3	Hot Water Pump HP								
Ng         Ng<	Condensate Pump HP				1/3				
Lule Hrs./Week	ADDITIONAL:								
Type of Cooling	Aux. HP Cooling								
Type of Cooling  (4) Water Cooled Chiller (5) Central Plant Supplied (6) Other  Alr Side (4) VAV w/ Reheat (5) Constant Volume Reheat (6) Heating and Ventilating (9) Central Plant Steam (1) Natural Gas (2) Central Plant Steam (3) Central Plant Steam (3) Central Plant Hot Water	Aux. HP Heating								
Type of Cooling   Type of Heatin   Type of Heatin	Operating Schedule Hrs./Week								
Type of Cooling  X (4) Water Cooled Chiller d DX (5) Central Plant Supplied (2) Boiler Hot Water (3) Steam to Hot Water Converter (4) Other Air Side (4) VAV w/ Reheat (5) Constant Volume Reheat (6) Heating and Ventilating (3) Central Plant Steam (4) Heating and Ventilating (3) Central Plant Hot Water									
(4) Water Cooled Chiller	Туре	of Cooling					ype of Heatir	<u>g</u> í	
DX		(4) Water Coole	d Chiller		(1) Boiler Hot M			(4) Furnace	
Air Side  Air Side  (4) VAV w/ Reheat (5) Constant Volume Reheat (6) Heating and Ventilating	(2) Water Cooled DX	(5) Central Plan	t Supplied		(2) Boiler Stean	_			
Air Side  (4) VAV w/ Reheat  (5) Constant Volume Reheat  (6) Heating and Ventilating		(6) Other			(3) Steam to Ho	t Water Conver	ter		
(4) VAV w/ Reheat (5) Constant Volume Reheat (6) Heating and Ventilating		Air Side					<b>-leating Sour</b> c	ec.	
(5) Constant Volume Reheat (2) Central Plant Steam (6) Heating and Ventilating (3) Central Plant Hot Water	(1) Single Zone	(4) VAV w/ Reh	eat		(1) Natural Gas			(4) Oil	
(6) Heating and Ventilating	(2) Multi-Zone	(5) Constant Vo	lume Reheat		(2) Central Plan	it Steam		(5) Electric	
	(3) VAV	(6) Heating and	Ventilating		(3) Central Plan	t Hot Water			

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#### EMCS Annual Energy Savings Summary Report

Base: FTMEADE Building: 2220

Case: 1

Description: REPAIR SHOP AND OFFICE

Fuel Type: Fuel oil, distillate #2

Heating Value: 138,700 Btu/gal

#### Caution

The ESA program makes no attempt to exclude incompatible strategies.

It is the user's responsibility to select all appropriate strategies.

#### Annual Energy Savings Table for Single Zone DX-A/C

Description: OFFICE A/C UNI	Т			
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Run Time Recording Safety Alarm	0.000 0.000 0.000	1,032 0 0	0.0 0.0 0.0	0 2 2
Totals	0.000 MBtu/yr	1,032 kWh/yr	0.0 kW	====== 4 mh/yr

Annual Energy Savings Table for Heating/Ventilating Unit

Description: SHOP WORK OFFI	CES HV UNIT			
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Vent/Recirculation Run Time Recording Safety Alarm	78.049 7.961 0.000 0.000	0 0 0 0	0.0 0.0 0.0 0.0	0 0 2 2
Subtotals Heating Value /	86.010 138,700	0 Btu/gal	0.0	4
Totals	620 gal/yr	0 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Steam Unit Heater

Description: SHOP STEAM UNIT	HEATERS			
Strategy	MBtu/yr	kWh/yr	k\	mh/yr
Day/Night Setback	203.708	0	0.0	0
Subtotals Heating Value /	203.708 138,700	0 Btu/gal	0.0	0
Totals	1,469 gal/yr	0 kWh/yr	0.0 kW	0 mh/yr

Annual Energy Savings Table for Lighting Control

Description: BLDG LIGHTING				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Lighting Control Run Time Recording Safety Alarm	0.000	57,408	0.0	0
	0.000	0	0.0	2
	0.000	0	0.0	2
Totals	0.000	57,408	0.0	4
	MBtu/yr	kWh/yr	kW	mh/yr

EMCS Annual Energy Savings for Building 2220		
Description	Value	Units
Fuel oil, distillate #2 Electrical Energy Electrical Demand Reduction Labor Savings	2,089 58,440 0.0 12	gal/yr kWh/yr kW mh/yr

Building:

2234

Square feet 2	5,1	62
---------------	-----	----

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Brick	0.44
Concrete Block	1.72
Air Space	1.10
Plaster	0.56
Inside Surface	0.68
Total R-Value	4.67
Total U-Value	0.21

Exterior Roof		
Components	R-Value	
Outside Surface	0.17	
Shingles	0.33	
Wood Deck	0.93	
3 1/2" Insulation	11.00	
Air Space	1.10	
Plaster	0.56	
Inside Surface	0.61	
Total R-Value	14.70	
Total U-Value	0.07	

Calculated Total Area	
No. of Floors	2
Avg. Floor to Floor Height	14
No. of Basement Levels	1
Gross Floor Area	25162
Roof Area	8400
Estimated Infiltration (cfm)	3350
Gross Wall Area	14824
Door Area	252
Gross Window Area	1416
Other	
Net Wall Area	13156

Window and Door	
	U-Value
Window Single Pane W/Storm	
Window Single Pane Wo/Storm	0.60
Window Double Pane	
Skylight	
Glass Block	
Other	
Door Type 1	0.50
Door Type 2	
Door Type 3	

UoAo = (10822\*0.21) + (8400\*0.07) + (210\*0.5) + (1176\*0.6) = 3671.2

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**BUILDING NO. 2234** 

EQUIPMENT				SYSTEM	SYSTEM NUMBER			
	1	2	3	4	2	9		8
Equipment Name	Boller	Boller	Chiller	Fan Coils				
COOLING:			က					
Type of Cooling								
Air Side								
Location in Building		Standby						
Area Sq. Feet								
Supply CFM								
Supply Fan HP				9				
O.A. CFM or %								
Return CFM								
Return Fan HP								
Chiller Tonnage			95					
Tower or Condenser Fan HP								
Condenser Pump HP								
Chilled Water Pump HP			7 1/2					
HEATING:								
Type of Heating	-	-						
Source	-	-						
МВТИН	2049	650						
Hot Water Pump HP	(3) @ 3/4							
Condensate Pump HP								
ADDITIONAL:								
Aux. HP Cooling								
Aux. HP Heating								
Operating Schedule Hrs./Week								
	I ype or cooling					Type of Heating	6	
(1) Air Cooled DX	(4) Water Cooled Chiller	d Chiller		(1) Boiler Hot Water	ater	•	(4) Furnace	
(2) Water Cooled DX	al Plan	t Supplied		(2) Boiler Steam		•		
(3) Air Cooled Chiller	(6) Other			(3) Steam to Ho	(3) Steam to Hot Water Converter	er		
	Air Side				<b>=</b>	Heating Source		
(1) Single Zone	(4) VAV w/ Reheat	eat		(1) Natural Gas			(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	lume Reheat		(2) Central Plant Steam	Steam		(5) Electric	
(3) VAV	(6) Heating and	Ventilating		(3) Central Plant Hot Water	Hot Water			
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#### EMCS Annual Energy Savings Summary Report

Base: FTMEADE Building: 2234

Case: 1 Description:

Fuel Type: Natural gas (methane)

Heating Value: 1,031 Btu/cf

#### Caution

#### Annual Energy Savings Table for Two Pipe Fan Coil Unit

/	=======	- :====================================		=====:
Description: FAN COILS				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Run Time Recording Safety Alarm	174.241 0.000 0.000	1,052 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	174.241 1,031	1,052 Btu/cf	0.0	4
Totals	169,002 cf /yr	1,052 kWh/yr	0.0 kW	====== 4 mh/yr

#### Annual Energy Savings Table for Hot Water Boiler

Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Hot Water OA Reset	163.920	0	0.0	0
Run Time Recording	0.000	0	0.0	2
Safety Alarm	0.000	0	0.0	2
Subtotals Heating Value /	163.920 1,031	0 Btu/cf	0.0	4
Totals	158,991	0	0.0	4
	cf /yr	kWh/yr	kW	mh/yr

#### Annual Energy Savings Table for Air Cooled Chiller

Description: C-1	=======================================			=====
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop	0.000	3,925	0.0	0
Chiller Water Reset	0.000	5,157	0.0	0
Run Time Recording	0.000	0	0.0	2
Safety Alarm	0.000	0	0.0	2
Totals	0.000	9,082	0.0	4
	MBtu/yr	kWh/yr	kW	mh/yr

#### Annual Energy Savings Table for Lighting Control

Description: Lighting				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Lighting Control	0.000	124,800	0.0	0
Totals	0.000 MBtu/yr	124,800 kWh/yr	0.0 kW	0 mh/yr

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## EMCS Annual Energy Savings for Building 2234

/=====================================	Value	Units
Natural gas (methane) Electrical Energy Electrical Demand Reduction	327,993 134,933 0.0	cf /yr kWh/yr kW
Labor Savings \====================================	12 ====================================	mh/yr

Building:

2253

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Vinyl Siding	0.61
2" Insulation	9.00
Air Space	1.10
Gyp Board	0.56
Inside Surface	0.68
Total R-Value	12.12
Total U-Value	0.08

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Shingles	0.44
Wood deck	0.93
3 1/2" Batt Insulation	12.00
Inside Surface	0.61
Total R-Value	14.15
Total U-Value	0.07

Calculated Total Area	
No. of Floors	1
Avg. Floor to Floor Height	15
No. of Basement Levels	
Gross Floor Area	18912
Roof Area	18912
Estimated Infiltration (cfm)	4700
Gross Wall Area	10650
Door Area	500
Gross Window Area	600
Other	
Net Wall Area	9550

Window and Door	
	U-Value
Window Single Pane W/Storm	
Window Single Pane Wo/Storm	1.00
Window Double Pane	
Skylight	
Glass Block	
Other	
Door Type 1	1.00
Door Type 2	
Door Type 3	

AoUo = (9550\*0.08) + (18912\*0.07) + (500\*1.0) + (600\*1.0) = 3187

**BUILDING NO. 2253** 

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EOIIDMENT				SYSTEM	SYSTEM NUMBER			
	-	ç	۲	P	2	9		œ
Carriement Mome	- Land	4		P	,	,		,
Equipment Name	בחומכט							
COOLING:				4				
Type of Cooling								
Air Side								
Location in Building			•					
Area Sq. Feet								
Supply CFM	18200							
Supply Fan HP	5							
O.A. CFM or %	%0							
Return CFM								
Return Fan HP								
Chiller Tonnage								
Tower or Condenser Fan HP								
Condenser Pump HP								
Chilled Water Pump HP								
HEATING:								
Type of Heating	4							
Source	1							
МВТИН	1250/1000							
Hot Water Pump HP								
Condensate Pump HP								
ADDITIONAL:								
Aux. HP Cooling								
Aux. HP Heating								
Operating Schedule Hrs./Week								
Type	Type of Cooling					Type of Heating	gı	
(1) Air Cooled DX	(4) Water Cooled Chiller	l Chiller		(1) Boiler Hot Water			(4) Furnace	
(2) Water Cooled DX	(5) Central Plant	Supplied		(2) Boiler Steam	_			
(3) Air Cooled Chiller	(6) Other			(3) Steam to Ho	(3) Steam to Hot Water Converter	ter		
Ā	ir Side				_	Heating Source	e:	
(1) Single Zone	(4) VAV w/ Reheat	at		(1) Natural Gas			(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	ume Reheat		(2) Central Plant Steam	t Steam		(5) Electric	
GADDO JECTEMAN OTICENTERNI INMA		Guidalia		No ociniar ra	ון וסן אמופו			

G.PROJECTSM130.07/SS/2253/EQUIPMNT.WK4

#### EMCS Annual Energy Savings Summary Report

Base: FTMEADE Building: 2253

Case: 1

Description: VEHICLE MAINTENANCE SHOP

Fuel Type: Natural gas (methane) Heating Value: 1,031 Btu/cf

#### Caution

The ESA program makes no attempt to exclude incompatible strategies.

It is the user's responsibility to select all appropriate strategies.

#### Annual Energy Savings Table for Direct Fired Furnace

/=====================================			=======	======
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Run Time Recording Safety Alarm	185.241 0.000 0.000	0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	185.241 1,031	0 Btu/cf	0.0	4
Totals	179,671 cf /yr	0 kWh/yr	0.0 kW	4 mh/yr

#### Annual Energy Savings Table for Lighting Control

Description: LIGHTING			========	=====
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Lighting Control	0.000	34,944	0.0	0
Totals	0.000 MBtu/yr	34,944 kWh/yr	0.0 kW	0 mh/yr

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### EMCS Annual Energy Savings for Building 2253

/=====================================		-========\ Units
Natural gas (methane)  Electrical Energy	======================================	cf /yr kWh/yr
Electrical Demand Reduction	0.0	kW mh/yr
Labor Savings \====================================	4 ====================================	  -===================================

Square feet

51,712

2257

**Building:** 

Exterior Wall Exterior Roof R-Value Components Components R-Value Outside Surface 0.17 **Outside Surface** 0.17 0.44 Brick Shingles 0.44 Concrete Block 1.72 Wood Deck 0.93 Air Space 1.10 Air Space 1.10 Plaster 0.56 Insulation 1" Rigid 6.00 Inside Surface 0.68 Plaster 0.56 Inside Surface 0.68 Total R-Value 4.67 Total R-Value 9.88 Total U-Value 0.21 Total U-Value 0.10 Calculated Total Area Window and Door No. of Floors 3 U-Value Avg. Floor to Floor Height Window Single Pane W/Storm 12 0.60 Window Single Pane Wo/Storm No. of Basement Levels 51712 Gross Floor Area Window Double Pane Roof Area 13000 Skylight

4655

380

3400

23990

27770

Glass Block

Door Type 1

Door Type 2

Door Type 3

0.50

Other

UoAo = (23990\*0.21) + (13000\*0.1) + (380\*0.5) + (3400\*0.6) = 8567.9

Estimated Infiltration (cfm)

Gross Wall Area

Gross Window Area

Door Area

Net Wall Area

Other

**BUILDING NO. 2257** 

Page 1 of 1

EQUIPMENT				SYSTEM NUMBER	NUMBER			
	1	2	3	4	2	9		8
Equipment Name	Boiler#1	Boiler#2	AHU-1	AHU-2	Chiller	Fan Coils		
COOLING:			က	·	က			
Type of Cooling			•	Ψ.				
Air Side			Bsmt	Court Rm		:	:	
Location in Building			38790	2700				
Area Sq. Feet	:		15000	3000				
Supply CFM			10	_		42		
Supply Fan HP			100%	20%				
O.A. CFM or %								
Return CFM								!
Return Fan HP								
Chiller Tonnage	!			1.5	80			
Tower or Condenser Fan HP					i	:		
Condenser Pump HP								
Chilled Water Pump HP					7.5			
HEATING:								
Type of Heating	·	_						
Source	·	-						
HOLDE	1750	1750						
Hot Water Pump HP	7.5	)						
Condensate Pump HP								
ADDITIONAL:								
Aux. HP Cooling								
Aux. HP Heating	:							
Operating Schedule Hrs /Week	:							
	Type of Cooling					<b>Type of Heating</b>	6	
(1) Air Cooled DX	(4) Water Cooled Chiller	d Chiller		(1) Boiler Hot Water			(4) Furnace	
(2) Water Cooled DX	(5) Central Plant	t Supplied		(2) Boiler Steam				
(3) Air Cooled Chiller	(6) Other			(3) Steam to Hot Water Converter	t Water Conver	ter		•
	Air Side					<b>Heating Source</b>	e	
(1) Single Zone	(4) VAV w/ Reheat	eat		(1) Natural Gas			(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	dume Reheat		(2) Central Plant Steam	t Steam		(5) Electric	
(3) VAV	(6) Heating and Ventilating	Ventilating		(3) Central Plant Hot Water	t Hot Water			
G:VPROJECTSW130.07\SS\2257\EQUIPMNT WK4								

G:VPROJECTSW130.07\SSV255\EQUIPMNT.WK4

#### EMCS Annual Energy Savings Summary Report

Base: FTMEADE Building: 2257

Case: 1

Description: ADMINISTRATIVE

Fuel Type: Natural gas (methane)

Heating Value: 1,031 Btu/cf

#### Caution

It is the user's responsibility to select all appropriate strategies.

#### Annual Energy Savings Table for Single Zone AHU

Description: AHU-1 100% C	OUTDOOR AIR UI	NIT 		
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Run Time Recording Safety Alarm	978.820 0.000 0.000	22,029 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value	978.820 / 1,031	22,029 Btu/cf	0.0	4
Totals	949,389 cf /yr	22,029 kWh/yr	0.0 kW	######################################

Annual Energy Savings Table for Single Zone DX-A/C

Description: AHU-2 BSMNT	COURT ROOM			
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Vent/Recirculation Run Time Recording Safety Alarm	68.826 7.777 0.000 0.000	2,365 0 0 0	0.0 0.0 0.0 0.0	0 0 2 2
Subtotals Heating Value	76.603 / 1,031	2,365 Btu/cf	0.0	4
Totals	74,300 cf /yr	2,365 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Two Pipe Fan Coil Unit

Description: FAN COILS				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Run Time Recording Safety Alarm	307.939 0.000 0.000	1,858 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	307.939 1,031	1,858 Btu/cf	0.0	4
Totals	298,680 cf /yr	1,858 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Hot Water Boiler

Description: BOILER				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Hot Water OA Reset Run Time Recording Safety Alarm	140.000 0.000 0.000	0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	140.000	0 Btu/cf	0.0	4
Totals	135,790 cf /yr	0 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Air Cooled Chiller

Description: AIR COOLED CHI	LLER			
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop	0.000	1,472	0.0	0
Chiller Water Reset	0.000	4,343	0.0	0
Run Time Recording	0.000	0	0.0	2
Safety Alarm	0.000	0	0.0	2
Totals	0.000	5,815	0.0	4
	MBtu/yr	kWh/yr	kW	mh/yr

Annual Energy Savings Table for Lighting Control

Description: LIGHTING				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Lighting Control	0.000	124,800	0.0	0
Totals	0.000 MBtu/yr	124,800 kWh/yr	0.0 kW	0 mh/yr

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### EMCS Annual Energy Savings for Building 2257

Value	Units
1,458,158 156,867 0.0	cf /yr kWh/yr kW mh/yr
	1,458,158 156,867

**Building:** 

2282

Square feet

22,796

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Concrete Block	1.72
Inside Surface	0.68
Total R-Value	2.57
Total U-Value	0.39

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Built-up Roof	0.33
1 1/2" Insulation	6.00
Metal Deck	0.00
Air Space	1.10
Acoustical Tile Clg	1.89
Inside Surface	0.61
Total R-Value	10.10
Total U-Value	0.10

Calculated Total Area	
No. of Floors	1
Avg. Floor to Floor Height	12
No. of Basement Levels	1
Gross Floor Area	22796
Roof Area	15970
Estimated Infiltration (cfm)	1500
Gross Wall Area	11064
Door Area	374
Gross Window Area	377
Other	
Net Wall Area	10313

Window and Door	
	U-Value
Window Single Pane W/Storm	0.60
Window Single Pane Wo/Storm	
Window Double Pane	
Skylight	
Glass Block	
Other	
Door Type 1	1.00
Door Type 2	
Door Type 3	

UoAo = (10313\*0.39) + (15970\*0.1) + (374\*1.0) + (377\*0.6) = 6219.3

**BUILDING NO. 2282** 

Page 1 of 1

EQUIPMENT				SYSTEM NUMBER	IUMBER			
	-	2	3	4	9	9		8
Equipment Name	Fan Coils	Boiler	Chiller	Chiller				
COOLING:								
Type of Cooling			3	3				
Air Side								
Location in Building								
Area Sq. Feet								
Supply CFM								
Supply Fan HP	7 1/2							
O.A. CFM or %								
Return CFM								
Return Fan HP								
Chiller Tonnage			21	21				
Tower or Condenser Fan HP								
Condenser Pump HP								
Chilled Water Pump HP								
HEATING:								
Type of Heating		1						
Source		<b>7</b>						
мвтин		100	-		The second secon			
Dual Temp. Water Pump HP		(2) @ 1						
Condensate Pump HP								
ADDITIONAL:								
Aux. HP Cooling								
Aux. HP Heating								
Operating Schedule Hrs./Week								
	Type of Cooling					Type of Heating	<u>D</u>	
(1) Air Cooled DX	(4) Water Cooled	l Chiller		(1) Boiler Hot Water	ter		(4) Furnace	
(2) Water Cooled DX	(5) Central Plant Supplied	Supplied		(2) Boiler Steam				
(3) Air Cooled Chiller	(6) Other			(3) Steam to Hot Water Converter	Water Conve	rter		
	Air Side					Heating Source	ė	
(1) Single Zone	(4) VAV w/ Reheat	at		(1) Natural Gas			(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	ıme Reheat		(2) Central Plant Steam	Steam		(5) Electric	
(3) VAV	(6) Heating and Ventilating	/entilating		(3) Central Plant Hot Water	Hot Water			
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#### EMCS Annual Energy Savings Summary Report

Base: FTMEADE Building: 2282

Case: 1
Description:

Fuel Type: Natural gas (methane)

Heating Value: 1,031 Btu/cf

#### Caution

#### Annual Energy Savings Table for Four Pipe Fan Coil Unit

Description: Fan Coil Units				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Run Time Recording Safety Alarm	143.146 0.000 0.000	921 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	143.146 1,031	921 Btu/cf	0.0	4
Totals	138,842 cf /yr	921 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Hot Water Boiler

Description: B-1				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Hot Water OA Reset Run Time Recording Safety Alarm	15.000 0.000 0.000	0 0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	15.000 1,031	0 Btu/cf	0.0	4
Totals	14,549 cf /yr	0 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Air Cooled Chiller

Description: C-1				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop	0.000	5,233	0.0	0
Chiller Water Reset	0.000	2,280	0.0	0
Run Time Recording	0.000	0	0.0	2
Safety Alarm	0.000	0	0.0	2
Totals	0.000	7,513	0.0	4
	MBtu/yr	kWh/yr	kW	mh/yr

Annual Energy Savings Table for Lighting Control

Description: LIGHTING				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Lighting Control	0.000	47,840	0.0	0
Totals	0.000 MBtu/yr	47,840 kWh/yr	0.0 kW	0 mh/yr

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### EMCS Annual Energy Savings for Building 2282

/=====================================	======================================	Units
Natural gas (methane) Electrical Energy	153,391 56,274	cf /yr kWh/yr
Electrical Demand Reduction Labor Savings	0.0 12	kW mh/yr

### FT. MEADE, MARYLAND

**Building:** 

2481

Square feet 17,436

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Brick	0.44
Air Space	1.10
Concrete Block	1.72
Inside Surface	0.68
Total R-Value	4.11
Total U-Value	0.24

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Built-up Roof	0.33
1 1/2" Insulation	9.00
Concrete Deck	0.50
Plaster	0.56
Inside Surface	0.61
Total R-Value	11.17
Total U-Value	0.09

Calculated Total Area	
No. of Floors	2
Avg. Floor to Floor Height	12
No. of Basement Levels	1
Gross Floor Area	17436
Roof Area	8822
Estimated Infiltration (cfm)	1600
Gross Wall Area	11472
Door Area	126
Gross Window Area	776
Other	
Net Wall Area	10570

Window and Door	
	U-Value
Window Single Pane W/Storm	0.60
Window Single Pane Wo/Storm	
Window Double Pane	
Skylight	
Glass Block	
Other	
Door Type 1	0.50
Door Type 2	
Door Type 3	

UoAo = (10570\*0.24) + (8822\*0.09) + (126\*0.5) + (776\*0.6) = 3859.4

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

BUILDING NO. 2481

Page 1 of 1

FOLIPMENT				SYSTEM NUMBER	NUMBER			
	-	2	3	4	5	9	7	æ
Equipment Name	AHU-1	Cond Unit	S-W Conv					
COOLING:								
Type of Cooling	-							
Air Side	2							
Location in Building	All						-	
Area Sq. Feet	17436							
Supply CFM	14535							
Supply Fan HP	15							
O.A. CFM or %	2100							
Return CFM								
Return Fan HP								
Chiller Tonnage		30						
Tower or Condenser Fan HP								
Condenser Pump HP								
Chilled Water Pump HP								
HEATING:								
Type of Heating			က					
Source			2					
МВТОН			800					
Hot Water Pump HP			ဇ	:				
Condensate Pump HP								
ADDITIONAL:								
Aux. HP Cooling								
Aux. HP Heating								
Operating Schedule Hrs./Week								
Туре	Type of Cooling					Type of Heating	ð	
(1) Air Cooled DX	(4) Water Cooled Chiller	ed Chiller		(1) Boiler Hot Water	/ater		(4) Furnace	
(2) Water Cooled DX	(5) Central Plant	nt Supplied		(2) Boiler Steam	-			
(3) Air Cooled Chiller	(6) Other			(3) Steam to Ho	(3) Steam to Hot Water Converter	er		
<b>4</b>	Air Side					Heating Source	0	
(1) Single Zone	(4) VAV w/ Reheat	heat		(1) Natural Gas			(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	olume Reheat		(2) Central Plant Steam	t Steam		(5) Electric	
(3) VAV	(6) Heating and	d Ventilating		(3) Central Plant Hot Water	t Hot Water			

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### EMCS Annual Energy Savings Summary Report

Base: FTMEADE Building: 2481

Case: 1

Description:

Fuel Type: Fuel oil, distillate #2

Heating Value: 138,690 Btu/gal

### Caution

The ESA program makes no attempt to exclude incompatible strategies. It is the user's responsibility to select all appropriate strategies. 

### Annual Energy Savings Table for Multi-zone DX-A/C

Description: AHU				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Hot/Cold Deck Reset Run Time Recording Safety Alarm	380.573 0.000 0.000	22,581 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	380.573 138,690	22,581 Btu/gal	0.0	4
Totals	2,744 gal/yr	22,581 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Steam/Hot Water Converter

Description: Heat Exchanger			=======================================	======
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Hot Water OA Reset Run Time Recording Safety Alarm	127.385 0.000 0.000	0 0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	127.385 138,690	0 Btu/gal	0.0	4
Totals	918 gal/yr	0 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Air Cooled DX Compressor

Description: DX CONDENSING	UNIT			=====
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Duty Cycling	0.000	39,102	0.0	0
Demand Limiting	0.000	0	4.5	0
Run Time Recording	0.000	0	0.0	2
Safety Alarm	0.000	0	0.0	2
Totals	0.000	39,102	4.5	4
	MBtu/yr	kWh/yr	kW	mh/yr

EMCS Annual Energy Savings for Building 2481

/======================================	=======================================	
Description	Value	Units
	=======================================	==============
Fuel oil, distillate #2	3,663	gal/yr
Electrical Energy	61,684	kWh/yr
Electrical Demand Reduction	4.5	kW
Labor Savings	12	mh/yr
\_====================================	=======================================	-======================================

### FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

BUILDING NO. 2482

Page 1 of 1

THURSDAY				THE PALLACE	CL			
				STS!EM NUMBER	סבא			
	1	2	3	4	5	6	7	8
Equipment Name	Boiler	Boiler	Boiler					
COOLING:								
Type of Cooling								
Air Side								
Location in Building								
Area Sq. Feet								
Supply CFM								
Supply Fan HP								
O.A. CFM or %								
Return CFM								
Return Fan HP								
Chiller Tonnage								
Tower or Condenser Fan HP				The same of the sa				
Condenser Pump HP								
Chilled Water Pump HP								
HEATING:								
Type of Heating	2	2	2					
Source	4	4	4					
МВТОН	13388.8	13388.8	13388.8					
Hot Water Pump HP								
Condensate Pump HP								
ADDITIONAL:								
Aux. HP Cooling								
Aux. HP Heating								
Operating Schedule Hrs./Week								
Type	Type of Cooling				TVT	Type of Heating		
(1) Air Cooled DX	(4) Water Cooled Chiller	d Chiller		(1) Boiler Hot Water	37.		(4) Furnace	
(2) Water Cooled DX	(5) Central Plant Supplied	t Supplied		(2) Boiler Steam				
(3) Air Cooled Chiller	(6) Other			(3) Steam to Hot Water Converter	er Converter			
A	Air Side				He	Heating Source	<b>6</b>	
(1) Single Zone	(4) VAV w/ Reheat	sat		(1) Natural Gas			(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	ume Reheat		(2) Central Plant Steam	Ē		(5) Electric	
(3) VAV	(6) Heating and Ventilating	Ventilating		(3) Central Plant Hot Water	Water		•	
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### EMCS Annual Energy Savings Summary Report

Base: FTMEADE Building: 2482 Case: 1

Description: STEAM BOILER PLANT

Fuel Type: Fuel oil, distillate #2

Heating Value: 138,700 Btu/gal

### Caution

### Annual Energy Savings Table for Steam Boiler

/=====================================	======== RS			======
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Steam Boiler Selection Run Time Recording Safety Alarm	556.150 0.000 0.000	0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	556.150 138,700	0 Btu/gal	0.0	4
Totals	4,010 gal/yr	0 kWh/yr	0.0 kW	4 mh/yr

### EMCS Annual Energy Savings for Building 2482

/=			
	Description	Value	Units
=	Fuel oil, distillate #2	4,010	gal/yr
	Electrical Energy	0	kWh/yr
-	Electrical Demand Reduction	0.0	kW
	Labor Savings	4	mh/yr
\ =		=======================================	:======================================

### FT. MEADE, MARYLAND

**Building:** 

2484

Square feet

18,185

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Metal Siding	0.00
3 1/2" insulation	11.00
Inside Surface	0.68
Total R-Value	11.85
Total U-Value	0.08

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Metal Roof	0.00
3 1/2" insulation	11.00
Inside Surface	0.61
Total R-Value	11.78
Total U-Value	0.08

Calculated Total Area	
No. of Floors	1
Avg. Floor to Floor Height	24
No. of Basement Levels	
Gross Floor Area	18185
Roof Area	18200
Estimated Infiltration (cfm)	4400
Gross Wall Area	13360
Door Area	260
Gross Window Area	100
Other	
Net Wall Area	13000

Window and Door	
	U-Value
Window Single Pane W/Storm	
Window Single Pane Wo/Storm	
Window Double Pane	0.55
Skylight	
Glass Block	
Other	
Door Type 1	1.00
Door Type 2	
Door Type 3	

UoAo = (13000\*0.08) + (18200\*0.08) + (260\*1.0) + (100\*0.55) = 2811

### FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

BUILDING NO. 2484

Page 1 of 1

				SYSTEM NUMBER	BER			
		2	3	4	5	9	7	8
Equipment Name	A/C-1	A/C-2	Unit Htrs					
COOLING:								
Type of Cooling	-	_						
Air Side	1	-						
Location in Building	1st Fir Office	Mezz Office	Warehouse					
Area Sq. Feet	2100	2100	13985					
Supply CFM	2000	2400						
Supply Fan HP	_	-						
O.A. CFM or %	%0	20%						
Return CFM								
Return Fan HP								
Chiller Tonnage	2 1/2	5						
Tower or Condenser Fan HP								
Condenser Pump HP								
Chilled Water Pump HP								
HEATING:								
Type of Heating	2	2	2	THE REAL PROPERTY AND ADDRESS OF THE PARTY AND				
Source	2	2	2					
МВТИН								
Hot Water Pump HP								
Condensate Pump HP								
ADDITIONAL:								
Aux. HP Cooling								
Aux. HP Heating								
Operating Schedule Hrs./Week								
<u> </u>	Type of Cooling				Ž	Type of Heating	5	
(1) Air Cooled DX	(4) Water Cooled Chiller	d Chiller		(1) Boiler Hot Water	17:		(A) Furnace	
(2) Water Cooled DX	(5) Central Plant	t Supplied		(2) Boiler Steam				
(3) Air Cooled Chiller	9r			(3) Steam to Hot Water Converter	er Converter			
	Air Side				He	Heating Source	Ð	
(1) Single Zone	(4) VAV w/ Reheat	eat		(1) Natural Gas			(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	lume Reheat		(2) Central Plant Steam	E :		(5) Electric	
AVA (6)	(o) nealing and	ventilating		(3) Central Plant Hot water	Water			

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### EMCS Annual Energy Savings Summary Report

Base: FTMEADE Building: 2484

Case: 1

Description: MEDICAL WAREHOUSE

Fuel Type: Fuel oil, distillate #2

Heating Value: 138,700 Btu/gal

### Caution

The ESA program makes no attempt to exclude incompatible strategies.

It is the user's responsibility to select all appropriate strategies.

### Annual Energy Savings Table for Single Zone DX-A/C

Description: MEZZANINE SPLI	T-SYSTEM UN	VIT		
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Vent/Recirculation Run Time Recording Safety Alarm	22.368 4.444 0.000 0.000	136 0 0 0	0.0 0.0 0.0 0.0	0 0 2 2
Subtotals Heating Value /	26.812 138,700	136 Btu/gal	0.0	4
Totals	193 gal/yr	136 kWh/yr	0.0 kW	====== 4 mh/yr

Annual Energy Savings Table for Single Zone DX-A/C

/=====================================	FFICE SPLIT-S	======================================		======\
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Vent/Recirculation Run Time Recording Safety Alarm	22.368 3.703 0.000 0.000	136 0 0 0	0.0 0.0 0.0 0.0	0 0 2 2
Subtotals Heating Value	26.072 / 138,700	136 Btu/gal	0.0	4
Totals	188 gal/yr	136 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Steam Unit Heater

Description: steam unit hea	======== ters			=====:
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Run Time Recording Safety Alarm	297.925 0.000 0.000	0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	297.925 138,700	0 Btu/gal	0.0	4
Totals	2,148 gal/yr	0 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Lighting Control

Description: BLDG LIGHTING				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Lighting Control	0.000	62,400	0.0	0
Totals	0.000 MBtu/yr	62,400 kWh/yr	0.0 kW	0 mh/yr

EMCS Annual Energy Savings for Building 2	2484	
Description	Value	Units
Fuel oil, distillate #2  Electrical Energy  Electrical Demand Reduction  Labor Savings	2,529 62,671 0.0 12	gal/yr kWh/yr kW kW mh/yr

### FT. MEADE, MARYLAND

0.24

Building:

2490

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Brick	0.44
Air Space	1.10
Concrete Block	1.72
Inside Surface	0.68
Total R-Value	4.11

Total U-Value

Square feet 3	34.1	44
---------------	------	----

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Built-up Roof	0.33
1" Insulation	6.00
Concrete Deck	1.08
Air Space	1.10
Acoustical Tile Clg	1.89
Inside Surface	0.61
Total R-Value	11.18
Total U-Value	0.09

Calculated Total Area	
No. of Floors	3
Avg. Floor to Floor Height	12
No. of Basement Levels	1
Gross Floor Area	34144
.Roof Area	9656
Estimated Infiltration (cfm)	2000
Gross Wall Area	15530
Door Area	
Gross Window Area	600
Other	
Net Wall Area	14930

U-Value
0.55
0.60
777

UoAo = (14930\*0.24) + (9656\*0.09) + (600\*0.55) = 4782

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

BUILDING NO. 2490

11

Page 1 of 1

8 S-W Conv (2) 7 1/2 (4) Oil (5) Electric (4) Furnace 2800 က 2 Type of Heating Heating Source AHU-3 Animals 6160 4150 100% 4 ß ဖ (3) Steam to Hot Water Converter Hood Make-up AHU-2 100% 6470 (3) Central Plant Hot Water 15 SYSTEM NUMBER 4 (2) Central Plant Steam (1) Boiler Hot Water (2) Boiler Steam (1) Natural Gas Gen. Lab 26715 AHU-1 27984 100% 5 4 Clg Twr (2) 15 270 15 (4) VAV w/ Reheat (5) Constant Volume Reheat (6) Heating and Ventilating Chiller 135 9 (5) Central Plant Supplied 4 (4) Water Cooled Chiller Type of Cooling Chiller 135 9 4 (6) Other Air Side Operating Schedule Hrs. Week Fower or Condenser Fan HP EQUIPMENT Chilled Water Pump HP Condensate Pump HP Condenser Pump HP (2) Water Cooled DX Hot Water Pump HP Air Cooled Chiller ocation in Building equipment Name (1) Air Cooled DX Chiller Tonnage Aux. HP Cooling Aux. HP Heating Type of Heating ype of Cooling Supply Fan HP O.A. CFM or % Return Fan HP (1) Single Zone ADDITIONAL: (2) Multi-Zone Area Sq. Feet Supply CFM Return CFM COOLING: HEATING: MBTUH Air Side Source

G:PROJECTSW130.07\SS2490\EQUIPMNT.WK4

### EMCS Annual Energy Savings Summary Report

Base: FTMEADE Building: 2490

Case: 1

Description: LABORATORY

Fuel Type: Fuel oil, distillate #2

### Caution

The ESA program makes no attempt to exclude incompatible strategies.

It is the user's responsibility to select all appropriate strategies.

### Annual Energy Savings Table for Terminal Reheat AHU

Description: AHU-1				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Reheat Coil Reset Run Time Recording Safety Alarm	1,024.830 0.000 0.000	25,594 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	1,024.830 138,700	25,594 Btu/gal	0.0	4
Totals	7,389 gal/yr	25,594 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Water Cooled Chiller

Description: CENTRIFUGAL C	HILLER			
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Chiller Water Reset Condenser Water Reset Run Time Recording Safety Alarm	0.000 0.000 0.000 0.000	11,181 2,651 0 0	0.0 0.0 0.0 0.0	0 0 2 2
Totals	0.000 MBtu/yr	13,832 kWh/yr	0.0 kW	====== 4 mh/yr

### EMCS Annual Energy Savings for Building 2490

/======================================	=======================================	
Description	Value	Units
Fuel oil, distillate #2	7,389	gal/yr
Electrical Energy Electrical Demand Reduction	39,426 0.0	kWh/yr kW
Labor Savings	. 8 ====================================	mh/yr

### UMCS FEASIBILITY STUDY FORT MEADE BUILDING 2490 - LABORATORY DOE ENERGY SAVINGS SUMMARY

	Space	Space Heat	Space Cool	HVAC Aux		Lights Misc Equip	101	TOTAL	TOTAL	AL
	Electricity	Fuel-Oil	Electricity	Electricity mmBtu		Electricity mmBtu	Electricity mmBtu	Electricity Natural Gas Electricity mmBtu Kwh	Electricity Kwh	Fuel-Oil Gallons
Existing	295.9	1	644.9		890.9	286.0	<u> </u>	1	970,448	59,488
New w/Vent/Recirc	201.2	4,508.4	655.1	1,184.7	890.9	286.0	3,217.9	4,508.4	942,839	32,505
Vent/Recirc Savings							94.2	3,742.6	27,609	26,984
							0.0	0.0	0	0
				5.			0.0	0.0	0	0
							0.0	0.0	0	0
							0.0	0.0	0	0
G:/PROJECTSW130.07\SS\2490\DOESUM.WK4										

SH-1	RADING,	PA = HOUI	19603 RLY-REPORT	FT. GEORG	E G. MEADE		BUILIDNG 249	00 - EXISTING (	PAGE 1-
морнн			AHU-1	AHU-1	AHU-1	AHU-1	AHU-1	AHU-3	АНU-3
	TOT HTO COIL PO BTU/HR	WR	TOT CLG COIL PWR BTU/HR	SUPPLY ELECTRIC KW	COOLING CAPACITY BTU/HR	HEATING CAPACITY BTU/HR	TOT PREH ENERGY BTU/HR	TOT HTG COIL PWR BTU/HR	TOT CLG COIL PWR BTU/HR
	(	5).	( 6)	(49)	(70)	(78)	(10)	(5)	( 6)
MONTH	LY SUMMARY	(JAN)							
MN		٥.	0.	25.884	911142.	0.	-1822246.	0.	0.
MX		٥.	0.						. 0.
SM		Ο.	0.	19257.922	677889728.	0.	-670314048.	0.	0.
AV		0.	0.	25.884	911142.	0.	-900960.	0.	0.
MONTHI	LY SUMMARY	(PEB)							
MN		0.	0.	25.884	911142.	0.	-1846708.	0.	٥.
MX		٥.	0.				0.	0.	0.
SM		٥.	0.	17394.254	612287552.		-516797408.	0.	0 -
AV		0.	0.	25.884	911142.	0.	-769044.	٥.	o.
MONTHI	LY SUMMARY	(MAR)							
MN		0.	0.	25.884	911142.	٥.	-1227478.	0.	0.
MX		0.	0.	25.884	1037806.	0.	0.	0.	0.
SM		0.	0.		678529664.		-365551328.	0.	0.
AV		0.	0.		912002.			0.	0.
MONTHI	LY SUMMARY	(APR)							
MN		0.	0.	25.884	911142.	0.	-1001237.	0.	٥.
MX		٥.	0.	25.884	1394832.	٥.	٥.	0.	
SM		٥.	٠ ٥.	18636.699			-168527568.		
AV		0.	0.	25.884	920605.		-234066.	0.	629.
MONTHI	LY SUMMARY	(MAY)							
MN		٥.	٥.	25.884	911142.	0.	-751561.	0.	0.
MX		٥.	223135.	25.884	1728923.	0.	0.	0.	
SM		Ο.	2423871.	19257.922	742160256.	0.	-51228700.	-1.	3716183.
av		٥.	3258.	25.884	997527.	0.	-68856.	0.	4995.
MONTHI	LY SUMMARY	(JUN)							
MN		0.	٥.	25.884	911142.	0.	-112071.	0.	٥.
MX		٥.	1506098.			0.	0.		
SM		0.	98212672.	18636.699	1007200704.	0.	-483906.	-1.	37219956.
AV		٥.	136406.	25.884	1398890.	0.	-672.	0.	51694.
	LY SUMMARY								
MN		0.	0.		911142.		0.		0.
MX		٥.	1930822.	25.884	3241252.	0.	0.	0.	349664.
SM		0.	225146528.	19257.922	1313815936.	0.	0.	٥.	66818768.
AV		0.	302616.	25.884	1765882.	٥.	0.	0.	

SH-1		= HOUI	RLY-REPORT							PAGE 2- 1
	AHU-1		AHU-1	AHU-1	AHU-1	AHU-1	AHU-1	AHU-3	AHU-3	
	TOT HTO COIL PV BTU/HR	TR.	TOT CLG COIL PWR BTU/HR	SUPPLY ELECTRIC KW	COOLING CAPACITY BTU/HR	HEATING CAPACITY BTU/HR	TOT PREH ENERGY BTU/HR	TOT HTG COIL PWR BTU/HR	TOT CLG COIL PWR BTU/HR	
	( 5	5)	( 6)	(49)	(70)	(78)	(10)	( S)	( 6)	
MONTHLY	SUMMARY	(AUG)								
MN		٥.	0.	25.884	911142.	0.	-74265.	0.	0	_
MX		0.	1860134.	25.884	2928645.	0.	0.	0.	307650	
SM		0.	263893344.	19257.922	1206385408.	0.	-148386.	0.	56514432	
AV		0.	354695.	25.884	1621486.	0.	-199.	0.	75960	
MONTHLY	SUMMARY	(SEP)								
MN		0.	0.	25.884	911142.	0.	-336175.	0.	o	
MX		0.	1723166.	25.884	2758919.	0.	0.	0.	275601	
SM		0.	136040096.	18636.699	921730368.	0.	-8105397.	-1.	27743118	
AV		0.	188945.	25.884	1280181.	0.	-11257.	0.	38532	
MONTHLY	SUMMARY	(OCT)								
MIN		0.	0.	25.884	911142.	0.	-867333.	0.	0	
MX		Ο.	425118.	25.884	1490384.	0.	0.	0.	40776	
SM		0.	4112859.	19257.922	704424768.	0.	-94577544.	-3.	178261	
AV		0.	5528.	25.884	946808.	0.	-127120.	٥.	240	•
MONTHLY	SUMMARY	(NOV)								
MIN		0.	0.	25.884	911142.	0.	-1017944.	0.	0	
MX		0.	0.	25.884	2168328.	0.	0.	0.	0	•
SM		Ο.	• 0.	18636.699	691415360.	0.	-286449856.	0.	0	•
AV		0.	0.	25.884	960299.	0.	-397847.	0.	0	•
MONTHLY	SUMMARY									
MIN		0.	0.	25.884	911142.	0.	-1487819.	0.	0	
MX		0.	0.	25.884	911142.	0.	0.	٥.	0	
SM		٥.	0.	19257.922	677889728.	0.	-554310016.	٥.	0	
ΑV		0.	0.	25.884	911142.	0.	-745040.	0.	0	•
YEARLY S	UMMARY									
MN		0.	0.	25.884	911142.	0.		0.	0	
MX		٥.	1930822.	25.884		0.	0.	٥.	349664	
SM		٥.	729829312.	226746.516		0.		-6.	192643712	
ΑV		0.	83314.	25.884	1129745.	0.	-310102.	0.	21991	

	PMIRCH			EZDOR - ELITE SOPTWARE DEVELOPMENT INC			DOE-2.1D	1/26/1996	11:24:3	11:24:37 SDL	
REI SH-1	ADING,	PA		FT. GEORG			BUILIDNG 2490 -			PAGE	
									<b>-</b>		
MINDDHIH	AHU-3		AHU-3	AHU-3	AHU-3						
	SUPPLY		COOLING	HEATING CAPACITY	TOT PREH						
	ELECTR	IC	CAPACITY	CAPACITY	ENERGY						
	KW		BTU/HR	BTU/HR	BTU/HR						
	(4	9)	(70)	(78)	(10)						
MONTHL	Y SUMMARY	(JAN)									
MN	3	.565	128031.	0. 0.	-250947.						
MX	3	.565	128031.	0.	0.						
SM	2652	.062	95255248.	0.	-92310880.						
AV	3	.565	128031.	0. 0.	-124074.						
MONTHL	Y SUMMARY	(FEB)									
MN	3	.565	128031.	0. 0.	-254316.						
MX	3	.565	128031.	0.	0.						
SM	2395	.411	86036992.	0.	-71169672.						
AV	3	.565	86036992. 128031.	0.	-105907.						
MONTHL	Y SUMMARY	(MAR)									
MN	3	.565	128031.	0.	-169040.						
MX	3	.565	145830.	٥.	0. -50341124.						
SM	2652	.062	145830. 95345160.	0.	-50341124						
AV			128152.	0.	-67663.						
	Y SUMMARY										
MN	3	.565	128031.	0. 0.	-137883.						
MX	3	.565	195998.	0.	-137883. 0.						
	2566	.511	93139928.	0.	-23208404.						
AV	3	.565	129361.	0. 0.	-32234.						
MONTHL	Y SUMMARY	(MAY)									
MN	3	.565	128031.	0.	-103500.						
MX		.565		0.	0.						
SM	2652	.062	104286376.	0.	0. -7054840.						
AV		.565		0.	-9482.						
MONTHL	Y SUMMARY	(JUN)				_					
	3			0.	-15433.	-					
SM	2566	.511	399921. 141529072.	0.	0. -66639.						
AV		.565									
MONTHL	Y SUMMARY	(JUL)									
MIN	3	.565	128031.	0.	0.						
MX	3	.565	128031. 455452.	0. 0.	0.						
SM			184613840.		٥.						
AV	3	.565	248137.	0.	0.						

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 1/26/1996 11:24:37 SDL RUN 1 BUILIDNG 2490 - EXISTING CONDITIONS 19603 FT. GEORGE G. MEADE READING, PA - HOURLY-REPORT PAGB 2- 2 SH-1 AHU-3 AHU-3 AHU-3 AHU-3 SUPPLY COOLING HEATING TOT PREH ELECTRIC CAPACITY CAPACITY ENERGY BTU/HR ΚW BTU/HR BTU/HR ----(49) ---- (70) ---- (78) ----(10) MONTHLY SUMMARY (AUG) 3.565 3.565 128031. Ο. -10227. MN 411525. 0. ٥. MX SM 2652.062 169517984. 0. -20435. 227847. AV 3.565 ٥. -27. MONTHLY SUMMARY (SEP) 3.565 MN 128031. Ο. -46296. 387676. ٥. 0. MX 3.565 129519072. -1116213. SM 2566.511 179888. ΑV 3.565 MONTHLY SUMMARY (OCT) 3.565 128031. -119443. MN 3.565 209425. ٥. Ο. -13024533. SM 2652.062 98983904. 0. 133043. -17506. ΑV 3.565 ٥. MONTHLY SUMMARY (NOV) 3.565 128031. MN 0. -140184. 304688. ٥. ٥. MX 3.565 -39447824. SM 2566.511 97155824. ΑV 3.565 134939. ο. -54789. MONTHLY SUMMARY (DEC) 128031. 0. -204892. 128031. MX 3.565 ٥. 0. 2652.062 95255248. -76335640. SM ΑV 128031. ο. -102602. YEARLY SUMMARY 3.565 MN 128031. ٥. -254316. 455452. MX 3.565 ٥. 0.

-374096160.

-42705.

٥.

31225.893

3.565

SM AV 1390638720.

158749.

MESSAGE LIST FROM PLANT

PROGRAM

TOWER WILL BE DEFINED FOR CHILLERS THAT NEED IT

ENTECH ENGINEERING EZDOE - BLITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/26/1996 11:24:37 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILIDING 2490 - EXISTING CONDITIONS
REPORT- FV-A EQUIPMENT SIZES WEATHER FILE- BALTIMORE, MD

BQUIPMBNT	NUMBER SIZE INSTD (MBTU/H) AVAIL					
HW-BOILER	2.832 1 1					
OPEN-CENT-CHLR	1.600 2 2					
COOLING-TWR	1.291 3 3					

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 1/26/1996 11:24:37 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE BUILIDNG 2490 - EXISTING CONDITIONS REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY WEATHER FILE- BALTIMORE, MD

												•	•
					S	ITE E	NERGY	Z .				•	* SOURCE
	2	3	4	5	6	7	8	9	10	11	12	13	14
MONTH	TOTAL HEAT LOAD	TOTAL COOLING LOAD	TOTAL ELECTR LOAD	RCVRED ENERGY	WASTED RCVRABL ENERGY	FUEL INPUT COOLING	ELEC INPUT COOLING	FUEL INPUT HEATING	BLEC INPUT HEATING	FUEL INPUT ELECT	TOTAL FUEL INPUT	TOTAL SITE SENERGY	SOURCE
JAN	1177.1	34.0	277.2 81.28	0.0	0.0	0.0	50.6 14.8B	1608.2	53.5 15.7B	0.0	1608.2	1885.4	2619.4
FEB	957.2	30.7	249.7 73.1E	0.0	0.0	0.0	45.7 13.4B	1326.2	47.5 13.9E	0.0	1326.2	1575.9	2223.3
MAR	760.1	34.0	280.1 82.0E	0.0	0.0	0.0	50.8 14.9B	1102.4	48.2 14.1B	0.0	1102.4	1382.5	2066.0
APR	451.9	33.3	258.5 75.7E	0.0	0.0	0.0	50.5 14.8E	689.0	37.8 11.18	0.0	689.0	947.5	1541.9
MAY	193.3	40.1	254.8 74.6E	0.0	0.0	0.0	59.0 17.3E	305.0	22.7 6.6E	0.0	305.0	559.8	* 1104.0 *
אטע	61.9	168.3	280.3 82.1B	0.0	0.0	0.0	93.0 27.2E	101.2	13.0 3.8£	0.0	101.2	381.5	* 954.1 *
JUL	27.2	325.9	310.4 90.9E	0.0	0.0	0.0	131.1 38.4E	44.4	10.2 3.02	0.0	44.4	354.8	981.4
AUG	49.1	354.4	327.7 96.0E	0.0	0.0	0.0	134.4 39.4E	80.3	12.1 3.5E	0.0	80.3	408.0	1073.3
SEP	73.3	196.6	279.0 81.7E	0.0	0.0	0.0	94.8 27.8E	119.6	13.9 4.1E	0.0	119.6	398.6	970.8
oct	313.5	38.2	256.3 75.1E	0.0	0.0	0.0	56.5 16.5R	488.5	30.7 9.0E	0.0	488.5	744.8	1312.5
NOV	637.7	32.9	261.0 76.4E	0.0	0.0	0.0	50.1 14.7B	943.3	44.6 13.1E	0.0	943.3	1204.3	* 1831.9 *
DEC	1030.6	34.0	277.1 81.2E	0.0	0.0	0.0	50.7 14.9B	1442.6	53.2 15.6E	0.0	1442.6	1719.7	2435.0
	5733.0	1322.3	3312.1 970.0B	0.0	0.0	0.0	867.1 254.0E	8250.8	387.2 113.4B	0.0	8250.8	11562.8	19113.6

NOTE-- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES FOLLOWED BY E ARE IN MWH (THOUSANDS OF KWH)

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/26/1996 11:24:37 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2490 - EXISTING CONDITIONS
REPORT- PS-B MONTHLY PEAK AND TOTAL ENERGY USE WEATHER FILE- BALTIMORE, MD

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МО UTILITY-ELECTRICITY FUEL-OIL 277.197 TOTAL (MBTU) 1608.244 569.958 3483.716 PEAK (KBTU) JAN DY/HR 31/19 31/ 1 TOTAL (MBTU) 249.675 1326.190 PEAK (KBTU) FEB 569.958 3539.580 TOTAL (MBTU) 280.119 1102.361 PEAK (KBTU) 569.958 2717.482 MAR DY/HR 31/19 5/4 258.546 TOTAL (MBTU) 688.972 PEAK (KBTU) 569.958 2390.740 APR DY/HR 29/8 9/8 TOTAL (MBTU) 254.772 305.029 MAY PEAK (KBTU) 610.770 1983.135 DY/HR 20/17 10/5 TOTAL (MBTU) 101.220 JUN PEAK (KBTU) 920.714 1150.280 DY/HR 10/16 1/3 TOTAL (MBTU) 310.371 44.435 809.574 21/5 1033.307 25/14 JUL PEAK (KBTU) DY/HR TOTAL (MBTU) 327.696 80 272 1004.658 1162.017 PEAK (KBTU) AUG DY/HR 31/15 22/ 4 TOTAL (MBTU) 279.034 119.605 SEP PEAK (KBTU) 957.896 DY/HR 2/14 30/6 TOTAL (MBTU) 256.323 488.512 oct PEAK (KBTU) 630.783 2131.650 DY/HR 13/16 28/6 260.969 TOTAL (MBTU) 943.349 PEAK (KETU) NOV 569.958 2366.032 DY/HR 30/19 9/6 277.082 TOTAL (MBTU) 1442.592 DEC PEAK (KBTU) 3023.045 DY/HR 30/19 22/5 ONE YEAR 3312.054 8250.782 USE/PEAK 1033.307 3539.580

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/26/1996 11:24:37 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE BUILIDING 2490 - EXISTING CONDITIONS
REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

HEATING LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
HW-BOILBR	5732.8	100.0
LOAD SATISFIED TOTAL LOAD ON PLANT	5732.8 5732.8	100.0
COOLING LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
OPEN-CENT-CHLR	1322.4	100.0
LOAD SATISFIED TOTAL LOAD ON PLANT	1322.4 1322.4	100.0
ELECTRICAL LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
ELECTRICITY	3312.1	100.0
LOAD SATISFIED TOTAL LOAD ON PLANT	3312.1 3312.0	100.0

TOWER ABOVE DESIGN TEMPERATURE OF 85.F 9 HOURS MAXIMUM TOWER EXIT TEMPERATURE = 86.F

### SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
HEATING LOADS	5732.8	5732.8	0.000	0.000	0
COOLING LOADS	1322.4	1322.4	0.000	0.000	0
ELECTRICAL LOADS	3312.0	3312.1	0.000	0.000	0

RNTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 1/26/1996 11:24:37 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE BUILIDUS 2490 - EXISTING CONDITIONS REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER FILE- BALTIMORE, MD

EQUIPMENT	AVG OPER RATIO	MAX LOAD (MBTU)	MON DAY HR	SIZE OPER (MBTU) HRS	SIZE OPER (METU) HRS	SIZE OPER (MBTU) HRS	SIZE OPER (MBTU) HRS	SIZE OPER (MBTU) HRS
HW-BOILER	0.231	2.832	2 3 6	2.832 8760				
OPEN-CENT-CHLR	0.093	2.326	7 25 14	1.600 8844				
COOLING-TWR	0.060	2.743	7 25 14	1.291 21185				

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/26/1996 11:24:37 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILIDING 2490 - EXISTING CONDITIONS
REPORT- PS-I EQUIPMENT LIFE CYCLE COSTS WEATHER FILE- BALTIMORE, MD

EQUIPMENT TOTALS HW-BOILER 98.3 NOMINAL SIZE (MBTU) 2.832 1 71.2 NUMBER INSTALLED FIRST COST (K\$)
ANNUAL COST (K\$) 71.2 1.1 1.1 CYCLICAL COST (K\$) ----TOTAL---- (K\$) 98.3 138.0 OPEN-CENT-CHLR NOMINAL SIZE (METU) 1.600 NUMBER INSTALLED FIRST COST (K\$)
ANNUAL COST (K\$) 93.3 93.3 93.3 15.2 29.5 15.2 CYCLICAL COST (K\$) ----TOTAL----(K\$) 138.0 NOMINAL SIZE (METU) . COOLING-TWR 1.291 NUMBER INSTALLED 3 52.5 FIRST COST (K\$)
ANNUAL COST (K\$) 52.5 104.6 CYCLICAL COST (K\$) 109.6 109.6 -----TOTAL----(K\$) 266.8

503.1

EQUIPMENT TOTAL

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/26/1996 11:24:37 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2490 - EXISTING CONDITIONS
REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE WEATHER FILE BALTIMORE, MD

ENERGY TYPE IN SITE MBTU - ELECTRICITY FUEL-OIL CATEGORY OF USE SPACE HEAT 295.85 8251.03 SPACE COOL 644.86 0.00 HVAC AUX 1194.52 0.00 DOM HOT WTR 0.00 0.00 AUX SOLAR 0.00 0.00 890.93 LIGHTS 0.00 VERT TRANS 0.00 0.00 MISC EQUIP 285.98 0.00 -----TOTAL 3312.14 8251.03

TOTAL SITE ENERGY 11562.84 MBTU 325.7 KBTU/SQFT-YR GROSS-AREA 325.7 KBTU/SQFT-YR NET-AREA TOTAL SOURCE ENERGY 19113.64 MBTU 538.4 KBTU/SQFT-YR GROSS-AREA 538.4 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 0.0
PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.0

NOTE ELECTRICITY.AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

	DING, PA	19603					1/26/1996 11:24: EXISTING CONDITIONS	
PH-1	= HOUR							PAGE 1-
	HW-BOILE	HW-BOILE	HW-BOILE				OPEN-CEN	
	R	2	R	T-CHLR	T-CHLR	OPEN-CEN T-CHLR	T-CHLR	
	LOAD	ELECTRIC	FUEL	LOAD	BLECTRIC	TOWER	CONDENSR	
		USE	USE		USR	LOAD	FAN ELEC	
	BTU/HR	BTU/HR	FUEL USE BTU/HR	BTU/HR	BTU/HR	BTU/HR	BTU/HR	
	(1)-	( 3)	(4)	( 1)	(3)	( 5)	(18)	
MONTHLY	SUMMARY (JAN)							
MIN	409245.	36014.	668764.	45639.	20367.	63969.	0.	
MX	2778430.	62297.	3483716. 1608244480.	45639.	20367.	63969.	٥.	
SM	1177080704.	45700760.	1608244480.	33955288.	15153048.	47593048.	0.	
	1582098.		2161619.	45639.	20367.	63969.	0.	
MONTHILY	SUMMARY (FEB)							
	72096.		117815.	45639.	20367.	63969	0.	
MX		6344. 62297.	117815. 3539580.	45639	20367	63969. 63969.	0.	
	957218240	40451064	1326188672.	30669294	13686624	42987268	0.	
AV			1973495.					
AV	1424432.	50193.	1973493.	43037.	20307.	63363.	٥.	
MONTHLY	SUMMARY (MAR)							
MN	18741.	1649.	30625.	45639.	20367.	63969.	0.	
MX	2066465.	62297.	2717482.	45639.	20739.	64304.	0.	
SM	760058624.	40396520.	30625. 2717482. 1102359936.	33955288.	15153420.	47593384.	٥.	
AV	1021584.	54296.	1481667.	45639.	20368.	63970.	0.	
MONTHLY	SUMMARY (APR)							
MN	18741.	1649.	30625.	45639.	20367.	63969.	0.	
MX	1772491.	62297.	2390740.	117620.	54403.	166583.	0.	
SM	451919232.	30258668.	30625. 2390740. 688971648.	33312950.	14885350.	46709776.	0.	
AV	627666.	42026.	956905.	46268.	20674.	64875.	0.	
MONTHLY	SUMMARY (MAY)							
MN	18741.	1649.	30625.	45639.	20367.	63969.	0.	
MX	1413163.	62297.	1983135.	353016.	87828.	432062.	0.	
SM	193289152.	14910120.	30625. 1983135. 305029888.	40095348.	17477772.	55825348.	0.	
AV	259797.	20040.	409986.	53892.	23492.	75034.	0.	
MONTHLY	SUMMARY (JUN)							
MN	18741.	1649.	30625.	45639.	20367.	63969.	0.	
MX		61944.	30625. 1150280.	1845382.	350658.	2158441.	0.	
SM	61941148.	5450820.	101220496.	168292576.	43861156.	207767632.	0.	
VA	86029.	7571.	140584.	233740.	60918.	288566.	0.	
MONTHLY	SUMMARY (JUL)							
MIN	18741.	1649.	30625.	45639.	20367.	63969.	0.	
MX		43596.	809574.	2326125.	463250.	2743050.	0.	
SM	27191824.	2392880.	30625. 809574. 44435236.	325920608.	74860312.	393294848.	ο.	
AV	36548.						0.	

	ENTECH ENGINE	19603	EZDOE - ELIT FT. GEORGE G	E SOFTWARE DEVI			1/26/1996 11: EXISTING CONDITION	ONS
PH-1	≠ HOUI	RLY-REPORT						PAGE 2- 1
			HW-BOILE	OPEN-CEN	OPEN-CEN	OPEN-CEN	OPEN-CEN	
	D	p	<b>9</b>	T-CHLR	T-CHT.R	T-CHLR	T-CHLR	
	LOAD	FLECTRIC	FUEL	LOAD	BLECTRIC	TOWER	CONDENSE	
	DOND	IISR	USR		USB	LOAD	PAN RLEC	
	BTU/HR	BTU/HR	use btu/hr	BTU/HR	BTU/HR	BTU/HR	BTU/HR	
	( 1)	(3)	(4)	( 1)	(3)	(5)	(18)	
MONTHLY	SUMMARY (AUG)							
MN	18741.	1649.	30625.	45639.	20367.	63969.	0.	
MX	712249.	62297.	30625. 1162017.	2213422.	434601.	2604563.	0.	
	49122924.	4322436.	80271840.	354363040.	76715880.	423407360.	0.	
AV			107892.		103113.			
MONTHLY	SUMMARY (SEP)							
MN	18741.	1649.	30625.	45639.	20367.	63969.	0.	
MX			1316920.					
SM						239194160.		
AV			166119.					
MONTHI.Y	SUMMARY (OCT)							
	18741.	1649.	30625.	45639.	20367.	63969.	0.	
MCK		62297	30625. 2131650.	511533.	107204.	608016.	0.	
CM.	313510112	22968548	488511936.	38246412.	16410418.	53015800.	0.	
AV	421385.	30872.	656602.	51406.	22057.	71258.	0.	
MONTHLY	SUMMARY (NOV)							
	18741.	1649.	30625.	45639.	20367.	63969.	0.	
MX		62297.	30625. 2366032.	45639.	23318.	66625.	0.	
SM	637707264.	37133480.	943348800.	32859958.	14753118.	46137780.	0.	
AV								
	SUMMARY (DEC)							
MN	120827.	10633.	197448.	45639.	20367.	63969.	0.	
MX	2346450.	62297.	3023045.	45639.	20367.	63969.	0.	
SM	1030591552.	45449528.	1442592384.	33955288.	15153048.	47593048.	0.	
			1938968.					
YEARLY	SUMMARY							
MN	18741.	1649.	30625.	45639.	20367.	63969.	0.	
MX	2831664.	62297.	30625. 3539580.	2326125.	463250.	2743050.	0.	
	5732963328.		8250781184.					
			941870.				0.	

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 1/26/1996 10:45:25 SDL RUN 1

READ			FT. GEORGE	G. MEADE		BUILDING 249	0 - NEW CONDIT	
H-1		LY-REPORT						PAGE 1-
MDDHH				AHU-1			AHU-3	AHU-3
	TOT HTG	TOT CLG	SUPPLY	COOLING	HEATING	TOT PREH	TOT HIG	
	COIL PWR	COIL PWR	BLECTRIC	CAPACITY	CAPACITY	ENERGY	COIL PWR BTU/HR	COIL PWR
	BTU/HR	BTU/HR	KW	CAPACITY BTU/HR	BTU/HR	BTU/HR	BTU/HR	BTU/HR
	(5)	( 6)	(49)	(70)	(78)	(10)	(5)	( 6)
MONTHLY	SUMMARY (JAN)							
MN	-3805.	0.	25.884	818023.	0.	-1822246. 0. -229892544.	0.	0.
MX	0.	0.	25.884	818023.	0.	٥.	0.	0.
SM	-118469.	٥.	19257.922	608609600.	0.	-229892544.	0.	0.
ΑV	-159.	0.	25.884	818024.	0.	-308995.	0.	0.
MONTHLY	SUMMARY (FEB)							
MN	-4421.	0.	25.884	818023.	0.	-1846708. 0. -157601296.	0.	0.
MX	0.	0.	25.884	818023.	0.	0.	0.	0.
SM	-118254	٥.	17394.254	549711872.	0.	-157601296.	0.	0.
AV	-176.	0.	25.884	818024.	0.	-234526.	0.	0.
MONTHLY	SUMMARY (MAR)							
MN	-11735.	0.	25.884	818023.	0.	-1142222. 0. -111306144.	0.	0.
MIX	0.	0.	25.884	1017039.	0.	0.	0.	0.
SM	-173777	0.	19257.922	609498432.	0.	-111306144.	0.	0.
AV	-233.	0.	25.884	819218.	0.	-149605.	0.	0.
YTHINOM	SUMMARY (APR)							
MN	-20061.	0.	25.884	818023.	0.	-1001214.	0.	0.
MX	0.	0.	25.884	1252280.	0.	٥.	0.	71981.
SM	-420189.	* 0.	18636.699	597961152.	0.	-46799436.	0.	452991.
AV	-584.	0.	25.884	830502.	0 -	-1001214. 0. -46799436. -64999.	0.	629.
MONTHLY	SUMMARY (MAY)							
MN	-11318.	0.	25.884	818023.	0.	-700012. 0. -15195893.	0.	0.
MX	0.	347743.	25.884	1628808.	0.	٥.	0.	99678.
SM	-1119894.	6460370.	19257.922	696699392.	0.	-15195893.	-1.	3716183.
AV	-1505.	8683.	25.884	936424.	0.	-20425.	0.	4995.
MONTHLY	SUMMARY (JUN)							
MN	-16779.	0.	25.884	818023. 2555196.	٥.	-72716. 0. -72716.	0.	0.
MX	٥.	1484142.	25.884	2555196.	0.	0.	0.	296275.
SM	-825419.	122634264.	18636.699	942513216.	0.	-72716.	-1.	37219956.
VA	-1146.	. 170325.	25.884	1309046.	0.	-101.	0.	51694.
MONTHLY	SUMMARY (JUL)							
MN	-7408.	0.	25.884	818023.	0.	0.	0.	0.
MX	0.	1866665.	25.884	2796499.	0.	٥.	0. 0.	349664.
SM	-142129.	229301056.		1158264192.		0.	٥.	66818768.
AV		308200.				0.	0.	89810.

DOE-2.1D 1/26/1996 10 BUILDING 2490 - NEW CONDITIONS EZDOE - BLITE SOFTWARE DEVELOPMENT INC 10:45:25 SDL RUN 1 ENTECH ENGINEERING 19603 FT. GEORGE G. MEADE READING, PA - HOURLY-REPORT PAGE 2- 1 SH-1 AHU-1 AHU-1 AHU-1 AHU-1 AHU-1 AHU-1 AHU-3 AHU-3 TOT HTG TOT CLG SUPPLY COOLING HEATING TOT PREH TOT HTG TOT CLG COIL PWR COIL PWR BLECTRIC CAPACITY CAPACITY ENERGY COIL PWR COIL PWR BTU/HR BTU/HR KW BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR ---- (49) ---- (70) . ---- (78) ----(10) ---(5) ----(6) ---( 6) ---(5) MONTHLY SUMMARY (AUG) -5316. 818023. ٥. 25.884 0. 0. ٥. MN ٥. 307650. 1829112. 2629337. 25.884 ٥. MX 0. ٥. 0. -155772. 268427968. 19257.922 1078595200. 56514432. SM 75960. 360790. 25.884 1449725. ٥. ٥. ٥. ΑV MONTHLY STIMMARY (SRP) -9633. 25.884 818023. MN 1643724. 25.884 2476958. 0. 0. ٥. 275601. -573029. 823260608. -2183881. SM 143682720. 18636.699 0. -1. 27743118. 199559. 25.884 1143418. -3033. ٥. 38532. λV -796. MONTHLY SUMMARY (OCT) -16921. ٥. 25.884 818023. 0. -867333. MN 1338067. 633490. 25.884 40776. ΜX ٥. -759861. ~19483860 14288077. 19257.922 640390976. n -3. 178261. 19204. 25.884 860741. -26188. ٥. 240. ΑV -1021. 0. MONTHLY SUMMARY (NOV) 25.884 818023. -1008452. MN -9475. ٥. Ο. ٥. 0. ٥. 25.884 1946725. ΜX 0. -84520880. 18636.699 627310400. -262. ΑV 0. 25.884 871264. 0. -117390. 0. 0. MONTHLY SUMMARY (DEC) -2780. ٥. 25.884 818023. ٥. -1483344. ٥. a. 25.884 860439. ΜX ٥. ٥. 0. 0. -123011. 19257.922 608720896. -180630016. SM ΑV 0. 25.884 818173. ٥. -242782. 0. ٥. YEARLY SUMMARY

-20061.

-4718207.

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REAL	DING, PA	19603	EZDOE - E		C DOE-2.1D BUILDING 2490 -	):45:25 SDL RUN 1
		RLY-REPORT				PAGE 1- 2
	AHU-3				 	 
	SUPPLY ELECTRIC	COOLING CAPACITY	HEATING CAPACITY BTU/HR	TOT PREH		
	KW	BTU/HR	BTU/HR	BTU/HR		
	(49)	(70)	(78)	(10)		
MONTHLY	SUMMARY (JAN)					
MN	3.565	128031.	0.	-250947.		
MX	3.565	128031.	0.	0.		
SM		95255248.	0.	0. -92310880.		
AV		128031.		-124074.		
MONTHLY	SUMMARY (FEB)					
MN	3 565	128031	0.	-254316.		
MX	3.565 3.565	128031	n .	-254316. 0.		
SM	2395.411			-71169672.		
AV	3.565	128031.	0.	-105907.		
	SUMMARY (MAR)					
MIN	3.565	128031.	0.	-169040.		
MX	3.565	145830.	0.	0.		
SM	2652.062	95345160.	0.	-50341124.		
AV	3.565	128152.	0.	-67663.		
MONTHLY	SUMMARY (APR)					
MN	3.565	128031.	0.	-137883.		
MX			0.	0.		
SM	2566.511	93139928.	0.	0. -23208404.		
AV	3.565	129361.		-32234.		
MONTHLY	SUMMARY (MAY)		0.			
MN	3.565	128031.	0.	-103500.		
MX	3.565	242944.	0.	0. -7054840.		
SM		104286376.	0.	-7054840.		
AV		140170.				
MONTHLY	SUMMARY (JUN)					
MN	3.565	128031.	0.	~15433.		
MX	3.565	399921.	0. 0.	0.		
SM	2566.511	141529072.	0.	0. -66639.		
ΑV		196568.				
MONTHLY	SUMMARY (JUL)					
			0.	0.		
MX	3.565 3.565	455452	0. 0.	0.		
SM		184613840.		0.		
AV		248137.		0.		

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/26/1996 10:45:25 SDL RUN 1
PRADING PA 19603 FT. GEORGE G. MEADE BUILDING 2490 - NEW CONDITIONS

	R SH-1	EADING,	PA			E G. MEADE	DBVIDDERIMIT INC	 NEW CONDITIONS	PAGE	2-	2
	5n-1							 			
					AHU-3	AHU-3					
		SUPPLY		COOLING	HEATING	TOT PREH					
		ELECTR:	IC	CAPACITY	CAPACITY	ENERGY					
		КW		BTU/HR	CAPACITY BTU/HR	BTU/HR					
		(4	9)	(70)	(78)	(10)					
	MONTH	ILY SUMMARY	(AUG)								
	MIN				0.						
	MIX	3	.565	411525.	0.	0. -20435.					
	SM		.062	169517984.	0.	-20435.					
	AV	3	.565	227847.	0. 0.	-27.					
	MONTE	ILY SUMMARY									
	MN	3	.565	128031.	0. 0.	-46296.					
•	MX	. 3	. 565	387676.	0.	0.					
	SM	1 2566	.511	129519072.	٥.	0. -1116213.					
	AV	3	.565	179888.	0.	-1550.					
	MONTE	ILY SUMMARY	(OCT)								
	MN	1 3	.565	128031.	0. 0.	-119443.					
	MO	: 3	.565	209425.	0.	0.					
	SM					-13024533.					
	74	7 3	.565	98983904. 133043.	0.	-17506.					
	MONTE	ILY SUMMARY	(NOV)								
	MA	1 3	.565	128031.	0.	-140184.					
	MD	. 3	.565	304688.	0.	0.					
	SN	1 2566	.511	304688. 97155824.	0.	0. -39447824.					
	/A			134939.	0.						
	MONTE	ILY SUMMARY	(DEC)								
	MIN	1 3	.565	128031.	0.	-204892.					
	MD	( 3	.565	128031.	0.	0.					
	SN	1 2652	.062	95255248.	0.	-76335640.					
	AT.			128031.	0.	0. -76335640. -102602.					
	YEARI	LY SUMMARY									
	M			128031.	٥.	-254316.					
	MD	( 3	.565	455452.	۵.	0.					
	SN			1390638720.	0.	-374096160.					
	7A				0.	-42705.					

MESSAGE LIST FROM PLANT PROGRAM

TOWER WILL BE DEFINED FOR CHILLERS THAT NEED IT

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/26/1996 10:45:25 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2490 - NEW CONDITIONS
REPORT- PV-A EQUIPMENT SIZES WEATHER FILE- BALTIMORE, MD

вопіьмеит	NUMBER SIZE INSTD (MBTU/H) AVAIL					
HW-BOILER	2.720 1 1					
OPEN-CENT-CHLR	1.600 2 2					
COOLING-TWR	1.291 3 3					

ENTECH ENGINEERING EZDOE - BLITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/26/1996 10:45:25 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2490 - NEW CONDITIONS
REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY WEATHER FILE- BALTIMORE, MD

					s	ITE E	NERGY	z.				,	SOURCE
				_									
	2	3	4	5	6	7	8	9	10	11	12	13	14
	TOTAL	TOTAL	TOTAL		WASTED	FUEL INPUT	ELEC	FUEL INPUT	ELEC	FUEL INPUT	TOTAL FUEL	TOTAL SITE	
MONTH	HRAT LOAD	COOLING	ELECTR LOAD	RCVRED ENERGY	RCVRABL ENERGY	COOLING	COOLING	HEATING	HEATING	ELECT	INPUT	ENERGY •	
JAN	660.1	33.0	268.9 78.8E	0.0	0.0	0.0	49.6 14.5E	974.7	46.1 13.5E	0.0	974.7	1243.6	1890.6
FEB	520.1	29.8	241.0 70.6E	0.0	0.0	0.0	44.8 13.1B	781.1	39.6 11.6B	0.0	781.1	1022.1	1591.5
MAR	403.6	33.0	267.8 78.4B	0.0	0.0	0.0	49.8 14.68	627.5	36.8 10.8B	0.0	627.5	895.4	1501.6
APR	211.0	32.4	243.7 71.4E	0.0	0.0	0.0	49.6 14.5E	335.0	23.9 7.0E	0.0	335.0	578.7 <b>*</b>	
MAY	79.9	43.2	246.0 72.18	0.0	0.0	0.0	58.7 17.2E	128.9	14.2 4.1E	0.0	128.8	374.9	882.0
JUN	19.3	191.8	280.7 82.2E	0.0	0.0	0.0	97.4 28.5E	31.6	8.9 2.6B	0.0	31.6	312.2	877.9
JUL	13.6	329.1	309.5 90.6B	0.0	0.0	0.0	131.7 38.6E	22.3	8.7 2.58	0.0	22.3	331.8	954.2
AUG	17.1	357.9	325.4 95.3E	0.0	0.0	0.0	135.2 39.6E	28.0	9.0 2.6E	0.0	28.0	353.4	
SEP	22.8	203.4	276.2 80.9B	0.0	0.0	0.0	96.7 28.3E	37.3	9.2 2.7E	0.0	37.3	313.4	
OCT	118.4	47.5	244.8 71.7B	0.0	0.0	0.0	58.5 17.1B	190.1	17.2 5.0E	0.0	190.1	434.9	946.5
NOV	319.2	31.9	246.7 72.2E	0.0	0.0	0.0	49.1 14.4E	500.9	31.3 9.2E	0.0	500.9	747.6	1297.4
DEC	562.3	33.0	267.1 78.2E	0.0	0.0	0.0	49.8 14.6E	851.1	44.1 12.9E	0.0	851.1	1118.2	1747.6
	2947.5	1366.0	3217.8 942.4B	0.0	0.0	0.0	871.1 255.1E	4508.4	289.0 84.7B	0.0	4508.4	7726.1	14672.3

NOTE -- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES FOLLOWED BY E ARE IN MWH (THOUSANDS OF KWH) ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/26/1996 10:45:25 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2490 - NEW CONDITIONS
REPORT- PS-B MONTHLY PEAK AND TOTAL ENERGY USE WEATHER FILE- BALTIMORE, MD

MO	UTILITY-	ELECTRICITY	FUEL-OIL	
	TOTAL (MBTU)	268.923	974.679	
JAN	PEAK (KBTU)	565.814	3361.637	
	DY/HR	31/19	31/ 7	
	TOTAL (MBTU)	240.953	781.102	
PEB	PEAK (KBTU)	565.814	3400.547	
	DY/HR	25/19	3/7	
	TOTAL (MBTU)	267.848	627.545	
MAR	PEAK (KBTU)	565.814	2454.148	
	DY/HR	31/19	4/7	
	TOTAL (MBTU)	243.734	334.964	
APR	PEAK (KBTU)	565.814	2202.541	
AFK	DY/HR	29/8	8/ 7	
	DI/HR	29/ 6	6/ /	
	TOTAL (MBTU)	246.020	128.848	
MAY	PRAK (KBTU)	628.185	1762.971	
	DY/HR	26/17	10/ 7	
	TOTAL (MBTU)	280.680	31.550	
JUN	PEAK (KBTU)	917.475	771.073	
00.1	DY/HR	10/16	22/ 7	
	TOTAL (MBTU)	309.492	22.276	
JUL	PRAK (KBTU)	1017.740	109.737	
	DY/HR	25/14	21/ 8	
	TOTAL (MBTU)	325.402	28.002	
AUG	PEAK (KBTU)	996.506	657.214	
	DY/HR	31/15	25/ 7	
	TOTAL (MBTU)	276,169	37.253	
SEP	PEAK (KBTU)	944.906	1134.212	
355	DY/HR	2/12	30/ 7	
	DI/IR	2/12	30, ,	
	TOTAL (MBTU)	244.833	190.101	
OCT	PEAK (KBTU)	657.322	1963.598	
	DY/HR	13/16	28/ 7	
	TOTAL (MBTU)	246.681	500.931	
NOV	PEAK (KBTU)	565.814	2219.146	
	DY/HR	30/19	23/ 7	
	mom r (10000001)	267 052	051 101	
222	TOTAL (MBTU)	267.052	851.103	
DEC	PRAK (KBTU) DY/HR	565.814 30/19	2866.880 21/ 7	
	DI/AK	30/19	21/ /	
	ONE YEAR	3217.787	4508.354	
	USE/PEAK	1017.740	3400.547	
	,			

ENTECH ENGINEERING READING, PA 19603 REPORT- PS-D PLANT LOADS SATISFIED EPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

ING EZDOB - ELITE SOFTWARE DEVELOPMENT INC 19603 FT. GEORGE G. MEADE

DOE-2.1D 1/26/1996 10:45:25 PDL RUN 1 BUILDING 2490 - NEW CONDITIONS

HEATING LOADS MBTU SUPPLIED PCT OF TOTAL LOAD -----------------2947.7 100.0 HW-BOILER 2947.7 LOAD SATISFIED 100.0 TOTAL LOAD ON PLANT 2947.7 MBTH SUPPLIED PCT OF TOTAL LOAD COOLING LOADS ----------

OPEN-CENT-CHLR 1366.1 100.0 ========= \_\_\_\_\_\_\_ LOAD SATISFIED 1366.1

TOTAL LOAD ON PLANT 1366.1

ELECTRICAL LOADS MBTU SUPPLIED PCT OF TOTAL LOAD -----

ELECTRICITY 100.0 LOAD SATISFIED 100.0 TOTAL LOAD ON PLANT 3217.8

TOWER ABOVE DESIGN TEMPERATURE OF 85.F 4 HOURS MAXIMUM TOWER EXIT TEMPERATURE = 86.F

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 1/26/1996 10:45:25 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2490 - NEW CONDITIONS
REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
HEATING LOADS	2947.7	2947.7	0.000	0.000	0
COOLING LOADS	1366.1	1366.1	0.000	0.000	0
ELECTRICAL LOADS	3217.8	3217.8	0.000	0.000	0

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 1/26/1996 10:45:25 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MRADE BUILDING 2490 - NEW CONDITIONS REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER FILE- BALTIMORE, MD

BQUIPMENT	AVG OPER RATIO	MAX LOAD (MBTU)	MON DAY HR	SIZE OPER (MBTU) HRS	SIZE OPER (MBTU) ERS	SIZE OPER (MBTU) HRS	SIZE OPER (MBTU) HRS	SIZE OPER (MBTU) HRS
HW-BOILER	0.124	2.720	2 3 7	2.720 8760				
OPEN-CENT-CHLR	0.097	2.261	7 25 14	1.600 8840				
COOLING-TWR	0.062	2.665	7 25 14	1.291 21287				

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/26/1996 10:45:25 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2490 - NEW CONDITIONS
REPORT- PS-I EQUIPMENT LIFE CYCLE COSTS WEATHER FILE- BALTIMORE, MD

B	Q 	บ 	I 	P 	M 	 E	N 	т	т	0	T	A	L.	s	
HW	-BO	ILE	R							95	.9				
				NO	MIN	ΆL	SIZ	B (MBTU)							2.720
				NU	MBB	R I	NST	ALLED							1
				ΡI	RST		CO	ST (K\$)					69	.4	69.4
				AN	NUA	L	CO	ST (K\$)					1	.1	1.1
				CY	CLI	CAL	, co	ST (K\$)					25	.5	25.5
						TOI	AL-	(K\$)							95.9
OP	EN-	CEN	T-C	HLR						138	. 0				
				NO	MIN	AL	SIZ	E (MBTU)							1.600
				NU	MBE	RI	NST	ALLED							2
				ΡI	RST	•	CO	ST (K\$)					93	.3	93.3
				AN	NUA	L	CO	ST (K\$)					15	.2	15.2
				CY	CLI	CAL	. 00	ST (K\$)					29	.5	29.5
						TOT	AL-	(K\$)							138.0
СО	OLI	NG-	TWR							267	. 2				
				NO	MIN	ΑL	SIZ	E (MBTU)							1.291
				NU	MBE	RI	NST	ALLED							3
				FI	RST	•	CC	ST (K\$)					52	.5	52.5
				AN	NUA	L	CC	ST (K\$)					104	.6	104.6
				CY	CLI	CAL	, cc	ST (K\$)					110	.1	110.1
						TOT	AL-	( <b>X</b> \$)							267.2
		EO	UIP	MEN	T	TOT	AL			501	. 2				

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/26/1996 10:45:25 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MRADE BUILDING 2490 - NEW CONDITIONS
REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE WEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE MBTU - ELECTRICITY FUEL-OIL CATEGORY OF USE SPACE HEAT 201.24 4508.40 655.11 0.00 SPACE COOL HVAC AUX 1184.65 0.00 DOM HOT WIR 0.00 0.00 AUX SOLAR 0.00 0.00 890.93 0.00 LIGHTS VERT TRANS 0.00 0.00 MISC EQUIP 285.98 0.00 TOTAL 3217.90 4508.40

TOTAL SITE ENERGY 7726.14 MBTU 217.6 KBTU/SQFT-YR GROSS-AREA 217.6 KBTU/SQFT-YR NET-AREA TOTAL SOURCE ENERGY 14672.31 MBTU 413.3 KBTU/SQFT-YR GROSS-AREA 413.3 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 0.1
PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.0

NOTE BLECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/26/1996 10:45:25 PDL RUN 1
PREDING PA 19603 FT GEORGE G. MEADE BUILDING 2490 - NEW CONDITIONS

PH-1	DING, PA = HOUF		FT. GEORGE G				NEW CONDITIONS	PAGE	
								PAGE	1
MMDDHH	UN BOTT D	uw_pott.p	W-ROTT.R	OPEN-CEN	OPEN~CEN	OPEN-CEN	OPRN-CRN		
-II-IIDDIIII	D DOING	D D	P DOLLE	ייבטייים איני	T-CHLR	T-CHLR	T-CHLR		
	7020	יין דפרייים זימ	PTIPI.	מבתו	PLECTRIC	TOWER	CONDENSE		
	DOND	HED	HCD	DOID	USB	מבחיז	FAN RIEC		
	BTU/HR	BTU/HR	HW-BOILE R FUEL USE BTU/HR	BTU/HR	BTU/HR	BTU/HR	BTU/HR		
			(4)						
MONTHT.V	SUMMARY (JAN)								
MAT	138519	12190	226359. 3361637. 974679040. 1310053.	44355.	19794.	62169.	0.		
MV	130313.	59950	3361637	44355	19794	62169	0.		
TLA.	2003344.	30600373	974679040	33000010	14726738	46254104	0.		
SM	000001004.	50050272.	1210052	44355	19794	62169	0.		
AV	887207.	52003.	1310053.	44333.	13/34.	62167.	0.		
MONTHLY	SUMMARY (FEB)						_		
MIN	68286.	6009.	111588. 3400547. 781102784.	44355.	19794.	62169.	0.		
MX	2720438.	59850.	3400547.	44355.	19794.	62169.	0.		
SM	520061312.	32870258.	781102784.	29806462.	13301570.	41777900.	0.		
AV	773901.	48914.	1162355.	44355.	19794.	62169.	0.		
MONTHLY	SUMMARY (MAR)								
MN	18005.	1584.	29422.	44355.	19794.	62169.	0.		
MX	1843754.	59850.	2454148.	44355.	20156.	62495.	0.		
SM	403602976.	29388986.	627545600.	33000010.	14727100.	46254432.	О.		
AV	542477.	39501.	29422. 2454148. 627545600. 843475.	44355.	19794.	62170.	0.		
MONTHLY	SUMMARY (APR)								
MN	18005.	1584.	29422. 2202541. 334964096.	44355.	19794.	62169.	0.		
MX	1619041.	59850.	2202541.	116336.	53807.	164762.	0.		
SM	211038896.	16670551.	334964096.	32388486.	14472435.	45413704.	0.		
AV	293110.	23154.	465228.	44984.	20101.	63075.	0.		
MONTHLY	SUMMARY (MAY)								
MN	18005.	1584.	29422. 1762971. 128847272.	44355.	19794.	62169.	0.		
MX	1234099.	59850.	1762971.	491776.	107279.	588327.	0.		
SM	79880432	6699001.	128847272.	43176564.	17591790.	59009200.	0.		
AV	107366.	9004.	173182.	58033.	23645.	79313.	0.		
MONTHLY	SUMMARY (JUN)								
MN	18005. 471852.	1584. 41523.	29422.	44355.	19794.	62169. 2131598.	0.		
MX	471852.	41523.	771073.	1822143.	348607.	2131598.	О.		
SM	19307008.	1699017.	31550346.	191789744.	47886880.	234887936.	0.		
AV	26815.	2360.	31550346. 43820.	266375.	66510.	326233.	0.		
MONTHLY	SUMMARY (JUL)								
MN	18005	1584.	29422.	44355.	19794.	62169.	0.		
MX	67153	5909	109737.	2260683.	448872.	2664668.	0.		
SM	13631887	1199606	29422. 109737. 22276414. 29941.	329119904.	75790704.	397331424.	0.		
AV	18322	1612	29941.	442365.	101869.	534048.	0.		
	20322.								

BUILDING 2490 - NEW CONDITIONS READING, PA 19603 FT. GEORGE G. MEADE PH-1 = HOURLY-REPORT PAGE 2- 1 HW-BOILE HW-BOILE HW-BOILE OPEN-CEN OPEN-CEN OPEN-CEN OPEN-CEN R T-CHLR T-CHI.R T-CHLR T-CHT.R FUEL LOAD ELECTRIC CONDENSE ELECTRIC TOWER LOAD USE USE USE LOAD FAN ELEC BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR ---- (4) ----(1) ----(3) ----(5) ----(1) ----(3) ----(18) MONTHLY SUMMARY (AUG) 18005. 1584. 29422. 44355. 19794. 62169. 0. 2181116. 657214. 427638. 2565991. ٥. МX 402177 35392. 357942432. 77757688. 1507925. 28001820. 427924384. ٥. 17135510. SM ΑV 23032. 2027. 37637. 481105. 104513. 575167. ٥. MONTHLY SUMMARY (SEP) 29422. 1584. 44355. 19794. 62169. ٥. MN 18005. 376038. 699194. 59850. 1134212. 1961841. 2297469. ٥. ΜX 49159604. 22805064. 2004054. 37252756. 203361312. 247605008. ٥. 51740. AV 31674. 2783. 282446. 68277. 343896. 0. MONTHLY SUMMARY (OCT) 18005. 1584. 29422 44355 19794. 62169 ٥. 1963598. 718620. 131709. 837159. ΜX 1408621. 59850. ٥. 9756237. 190100960. 47466348. 18418558. 64043072. ٥. 118433264. SM 255512. ΑV 159185. MONTHLY SUMMARY (NOV) 1584. 18005. MN 22662. ΜX 1633770. 59850. 2219146. 44355. 64751. ٥. 500931040. 31935494. 44839776. SM 319214144. 24071954 14338060. ο. 695738. 44355. 62277. 33433. 19914. ΑV 443353. 0. MONTHLY SUMMARY (DEC) 9376. 174110. 19794. 44355. 62169. ٥. MN 106545. 2219723. 59850. 2866880. 44355. 19794. MX 562339328. 36683128. 851103040. 33000010. 14726738. 46254104. ٥. 1143956. ΑV 755832. 49305. 44355. 19794. 62169. ٥. YEARLY SUMMARY 29422. 44355. 19794. 62169. 0. MN 18005 1584. 3400547. 2260683. 2720438. 59850. 448872. 2664668. ٥. ΜX 2947531520. 201240992. 4508355584. 1365986816. 372897888. 1701595008. ٥. ΑV 336476. 22973. 514652. 155935. 42568. 194246. 0.

EZDOB - ELITE SOFTWARE DEVELOPMENT INC

DOE-2.1D 1/26/1996

10:45:25 PDL RUN 1

ENTECH ENGINEERING

# ATTACHMENT SECTION 8.2B BUILDINGS 2501 TO 3000

- Entech Engineering, Inc. -

### FT. MEADE, MARYLAND

Building:

2501

Square feet 14,754

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Vinyl Siding	0.61
1" Insulation	6.00
Wood Siding	0.93
Air Space	1.10
Gyp. Board	0.56
Inside Surface	0.68
Total R-Value	10.05
Total U-Value	0.10

Exterior Roof									
Components	R-Value								
Outside Surface	0.17								
Asphalt Shingles	0.44								
Wood	0.93								
3-1/2" Batt Insulation	11.00								
Gyp. Board	0.56								
Air Space	1.10								
Acoustical Tile Ceiling	1.89								
Inside Surface	0.61								
Total R-Value	16.70								
Total U-Value	0.06								

Calculated Total Area	
No. of Floors	1
Avg. Floor to Floor Height	12
No. of Basement Levels	0
Gross Floor Area	14754
Roof Area	14754
Estimated Infiltration (cfm)	2000
Gross Wall Area	8340
Door Area	211
Gross Window Area	544
Other	
Net Wall Area	7585

Window and Door	
	U-Value
Window Single Pane W/Storm	0.60
Window Single Pane Wo/Storm	
Window Double Pane	
Skylight	
Glass Block	
Other	
Door Type 1	1.00
Door Type 2	
Door Type 3	

AoUo = (7585\*0.1) + (14754\*0.06) + (211\*1.0) + (544\*0.6) = 2181

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

**BUILDING NO. 2501** 

Page 1 of 1

TNEMENT				SYSTEM	SYSTEM NUMBER			
	1	2	3	4	5	9	7	8
Equipment Name	AC-1	AC-2	AC-3	AC-4	Furnace-1	Furnace-2		
COOLING:								
Type of Cooling	_	-	_	-				
Air Side	-	-	-	-				
Location in Building								
Area Sq. Feet	2,112	1,100	945	8,000	4,412	8,945		
Supply CFM	2,000	800	800	3,000	8,180	18,200		
Supply Fan HP	0.5	0.5	0.5	1.5	ო	5		
O.A. CFM or %	%0	%0	%0	%0	%0	%0		
Return CFM								
Return Fan HP								
Chiller Tonnage								
Tower or Condenser Fan HP								•
Condenser Pump HP								
Chilled Water Pump HP								
HEATING:						:		:
Type of Heating					4	4		
Source					-	-		
МВТОН					562	1250		
Hot Water Pump HP								
Condensate Pump HP								
ADDITIONAL:								
Aux. HP Cooling								
Aux. HP Heating								
Operating Schedule Hrs./Week								
ANY	Type of Cooling					Type of Heating		
(1) Air Cooled DX	(4) Water Cooled Chiller	od Chiller		(1) Boiler Hot Water			(4) Furnace	
(2) Water Cooled DX	(5) Central Plan	nt Supplied		(2) Boiler Steam	E 6			
(3) Air Cooled Chiller	(6) Other	•		(3) Steam to H	3) Steam to Hot Water Converter	ter		
	Air Side					Heating Source	9	
(1) Single Zone	(4) VAV w/ Reheat	neat		(1) Natural Gas	· o		(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	olume Reheat		(2) Central Pla	nt Steam		(5) Electric	
(3) VAV	(6) Heating and	d Ventilating		(3) Central Plant Hot Water	nt Hot Water			
CABBO ISCITEMATA OF SERVICE MENT MAKE								

G:VPROJECTSM130.07\SS\2501\EQUIPMNT.WK4

#### EMCS Annual Energy Savings Summary Report

Base: FTMEADE
Building: 2501
Case: 1

Description:

Fuel Type: Natural gas (methane)
Heating Value: 1,031 Btu/cf

#### Caution

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The ESA program makes no attempt to exclude incompatible strategies.

It is the user's responsibility to select all appropriate strategies.

## Annual Energy Savings Table for Single Zone DX-A/C

Description: AC-1				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop	0.000	365	0.0	. 0
Optimum Start/Stop	0.000	0	0.0	0
Duty Cycling	0.000	349	0.0	0
Demand Limiting	0.000	0	0.0746000	0
Run Time Recording	0.000	0	0.0	2
Safety Alarm	0.000	0	0.0	2
Totals	0.000 MBtu/yr	715 kWh/yr	0.0746000 kW	4 mh/yr

Annual Energy Savings Table for Single Zone DX-A/C

<b>-</b>	) (T)   /	1 1		
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop	0.000	343	0.0	0
Optimum Start/Stop	0.000	0	0.0	0
Duty Cycling	0.000	349	0.0	0
Demand Limiting	0.000	0	0.0746000	0
Run Time Recording	0.000	0	0.0	2
Safety Alarm	0.000	0	0.0	2
Totals	0.000	692	0.0746000	4
	MBtu/yr	kWh/yr	kW	mh/yr

Annual Energy Savings Table for Single Zone DX-A/C

Description: AC-3				
Strategy	- MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop	0.000	340	0.0	0
Optimum Start/Stop	0.000	0	0.0	0
Duty Cycling	0.000	349	0.0	0
Demand Limiting	0.000	0	0.0746000	0
Run Time Recording	0.000	0	0.0	2
Safety Alarm	0.000	0	0.0	2
Totals	0.000 MBtu/yr	689 kWh/yr	0.0746000 kW	4 mh/yr

Annual Energy Savings Table for Single Zone DX-A/C

Description: AC-4				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Optimum Start/Stop Duty Cycling Demand Limiting Run Time Recording Safety Alarm	0.000 0.000 0.000 0.000 0.000	1,133 0 1,047 0 0	0.0 0.0 0.0 0.0 0.2 0.0	0 0 0 0 0 2 2
Totals	0.000 MBtu/yr	2,181 kWh/yr	0.2 kW	====== 4 mh/yr

Annual Energy Savings Table for Direct Fired Furnace

Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Run Time Recording Safety Alarm	19.357 0.000 0.000	0 0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	19.357 1,031	0 Btu/cf	0.0	4
Totals	18,775 cf /yr	0 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Direct Fired Furnace

Description: F-2				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Run Time Recording Safety Alarm	39.245 0.000 0.000	0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	39.245 1,031	0 Btu/cf	0.0	4
Totals	38,065 cf /yr	0 kWh/yr	0.0 kW	######################################

Annual Energy Savings Table for Lighting Control

Description: Lighting				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Lighting Control	0.000	37,440	0.0	0
Run Time Recording	0.000	0	0.0	0
Safety Alarm	0.000	0	0.0	0
Totals	0.000	37,440	0.0	0
	MBtu/yr	kWh/yr	kW	mh/yr

EMCS Annual Energy Savings for Building 2501

Description	Value	Units
Natural gas (methane)  Electrical Energy  Electrical Demand Reduction  Labor Savings	.56,841 41,716 0.4 24	cf /yr kWh/yr kW mh/yr
\_====================================	=======================================	

### FT. MEADE, MARYLAND

Building:

2786

Square feet	118,	000
-------------	------	-----

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Brick	0.44
Concrete Block	1.72
1" Rigid Insulation	6.00
Gyp Board	0.56
Inside Surface	0.68
Total R-Value	9.57
Total U-Value	0.10

The second secon	
Exterior Roof	
Components	R-Value
Outside Surface	0.17
Built-up Roof	0.33
Metal Deck	0.00
2" Rigid Insulation	12.00
Air Space	1.11
Acoustical Tile Clg	1.89
Inside Surface	0.61
Total R-Value	16.11
Total U-Value	0.06

Calculated Total Area	ì
No. of Flo	ors 1
Avg. Floor to Floor Hei	ght20
No. of Basement Lev	els
Gross Floor A	rea 118000
Roof A	rea 108300
Estimated Infiltration (c	fm) 10800
Gross Wall A	rea 29400
Door A	rea 1150
Gross Window A	rea 1600
Ot	her
Net Wall A	rea 26650

Window and Door	
	U-Value
Window Single Pane W/Storm	
Window Single Pane Wo/Storm	
Window Double Pane -	0.55
Skylight	
Glass Block	
Other	
Door Type 1	1.00
Door Type 2	
Door Type 3	

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

**BUILDING NO. 2786** 

Page 1 of 1

				SVCTEM NI IMBED	Ω		
EQUIPMEN					-		0
	-	2	3	4	٩		0
Equipment Name	AHU-1	AHU-2	AHU-3	Boiler			
						A Management of the Control of the C	•
Type of Cooling	-	-					
Air Side	-	-	-				
Location in Building	Store	Offices	Warehouse				
Area Sq. Feet							
Supply CFM	26000	8600	20000				
Supply Fan HP	30	15	20				
O.A. CFM or %	5200	1720	0-100%				
Return CFM							
Return Fan HP							
Chiller Tonnage	110	25					
Tower or Condenser Fan HP							
Condenser Pump HP							
Chilled Water Pump HP							
HEATING:							
Type of Heating				_			
Source				_			
МВТОН				3875/3100			
Hot Water Pump HP				7 1/2			
Condensate Pump HP							
ADDITIONAL:							
Aux. HP Cooling							
Aux. HP Heating							
Operating Schedule Hrs./Week							
Typ	Type of Cooling				Type of	Type of Heating	
(1) Air Cooled DX	(4) Water Cooled Chiller	ed Chiller		(1) Boiler Hot Water		(4) Furnace	
(2) Water Cooled DX	(5) Central Plant Supplied	nt Supplied		(2) Boiler Steam			
(3) Air Cooled Chiller	(6) Other			(3) Steam to Hot Water Converter	Converter		
	Air Side				Heating	Heating Source	
(1) Single Zone	(4) VAV w/ Reheat	neat		(1) Natural Gas		(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	olume Reheat		(2) Central Plant Steam		(5) Electric	
(3) VAV	(b) Heating and Ventilating	Ventilating		(3) Central Plant Hot water	ater		

G:PROJECTSM130.07\SS\\\\Z786\EQUIPMNT.WK4

EMCS Annual Energy Savings Summary Report

Base: FTMEADE Building: 2786 Case: 1

Description:

Fuel Type: Natural gas (methane)

Heating Value: 1,031 Btu/cf

#### Caution

Annual Energy Savings Table for Hot Water Boiler

Description: BOILER				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Hot Water OA Reset	290.625	0	0.0	0
Subtotals Heating Value /	290.625 1,031	0 Btu/cf	0.0	0
Totals	281,887 cf /yr	0 kWh/yr	0.0 kW	0 mh/yr

EMCS Annual Energy Savings for Building 2786

/	Description	Value	Units
	Natural gas (methane) Electrical Energy Electrical Demand Reduction Labor Savings	281,887 0 0.0 0	cf /yr kWh/yr kW mh/yr
\			:=======/

## UMCS FEASIBILITY STUDY FORT MEADE BUILDING 2786 - COMMISSARY DOE ENERGY SAVINGS SUMMARY

	Space Heat	Heat	Space Cool	HVAC Aux	Lights	Misc Equip	TOTAL	AL	TOTAL	AL
	Electricity	Electricity Natural Gas	Electricity		Electricity	Electricity	Electricity	Electricity Natural Gas	Electricity Natural Gas	Vatural Gas
	mmBtu	mmBtu	mmBtu	mmBtu	mmBtu	mmBtu	mmBtu	mmBtu	Kwh	MCF
Existing	214.3	1	617.1	1,667.2	2,481.2	842.0	5,821.8	4,223.5	1,705,772	4,096.5
New w/Vent/Recirc	183.9	3,508.4	627.3	1,667.2	2,481.2	842.0	5,801.5	3,508.4	1,699,827	3,402.9
Vent/Recirc Savings							20.3	715.1	5,945	693.5
New w/Night Setback	172.2	3,386.9	562.6	1,142.6	2,481.2	842.0	5,200.5	3,386.9	1,523,745	3,285.1
and Vent/Recirc Night Setback Savings							601.0	121.5	176,083	117.9
New w/Night Setback &	172.2	3,386.6	555.0	1,142.6	2,481.2	842.0	5,192.9	3,386.6	1,521,509	3,284.8
Vent/Kecirc & Economizer Economizer Savings							7.6	0.3	2,236	0.3

FILE : FTM2786E

	ADING, P	INEERING A 19603			EVELOPMENT INC		1D 12/28/1995 6 - COMMISSARY		SDL RUN 1 SB 1- 1
SH-1		OURLY-REPORT							
MMDDHH	AHU-1	AHU-1	AHU-1	AHU-1	AHU-1	AHU-2	AHU-2	AHU-2	
	TOT HTG COIL PWR BTU/HR	COOLING BLECTRIC KW	COOLING CAPACITY BTU/HR	HEATING CAPACITY BTU/HR	SUPPLY BLECTRIC KW	TOT HTG COIL PWR BTU/HR	COOLING ELECTRIC KW	SUPPLY ELECTRIC KW	
	( 5)	(47)	(70)	(78)	(49)	(5)	(47)	(49)	
MONTHL	Y SUMMARY (JA	N)							
MN	-883899.	0.000	1402355.	-1251263.	19.612	-175680.		4.171	
MX			1807260.		19.612	٥.	0.000	4.171	
SM			1197676800.	-930940288.	14591.033	-43375312.	0.000	3103.449	
AV				-1251264.		-58300.	0.000	4.171	
MONTHI	LY SUMMARY (FE	<b>(B)</b>							
MIN	-932286.	0.000	1381671.	-1251263.		-174240.		4.171	
MX	0.	0.000	1807260.						
SM	-201640272.	0.000	1062581504.	-840849280.	13178.997				
ΑV	-300060.	0.000	1581223.	-1251264.	19.612	-53131.	0.000	4.171	
MONTH	LY SUMMARY (MA	JR)							
MN	-715932.		1294808.	-1251263.					
MX	٥.	0.000	1677148.	-1251263.					
SM	-109003552.	0.000			14591.033			3103.449	
AV	-146510	0.000	1522171.	-1251264.	19.612	-22868.	0.000	4.171	
MONTH	LY SUMMARY (AI							4.171	
MIN	-512554		1307878.			-99007.			
MX	. 0.		1630112.						
SM	~31545044	0.000	1055626048.		14120.354		0.000	3003.337	
AV	-43813	0.000	1466147.	-1251264.	19.612	-5788.	0.000	4.171	
MONTH	LY SUMMARY (M	AY)							
MIN	. 0				19.612		0.000		
MX	. 0	. 72.685				0.	15.826	4.171	
SM	0		1044280064.		14591.033		2996.708	3103.449	
AV	, 0	. 16.109	1403602.	0.	19.612	0.	4.028	4.171	
	LY SUMMARY (J			_			0.000	4.171	
MIN		. 0.000							
MX		. 125.893	1500214.			0.	26.827 6885.199		
SM	•	. 29732.756	989371648.		14120.354		6885.199	4.171	
λV	0	. 41.295	1374127.	0.	19.612	0.	9.563	4.1/1	
	ILY SUMMARY (J		1222264	0.	19.612	0.	0.000	4.171	
MN		. 0.000						4.171	
MX	•	. 129.395							
SM			1030672448.			0.		4.171	
AV	<i>y</i> 0	. 52.876	1385312.	0.	19.612	U.	11.9/5	4.4/1	

ENTECH ENGINEERING READING, PA HOURLY-REPORT BUILDING 2786 - COMMISSARY 19603 FT. GEORGE G. MEADE PAGE 2- 1 SH-1 AHU-1 AHU-1 AHU-1 AHU-2 AHU-2 AHU-1 AHU-1 SUPPLY COOLING TOT HTG TOT HTG COOLING COOLING HRATING SUPPLY BLECTRIC COIL PWR BLECTRIC CAPACITY ELECTRIC COIL PWR BLECTRIC CAPACITY BTU/HR KW BTU/HR KW KW BTU/HR BTU/HR KW ----(5) ---- (47) ---- (49) ----(78) ---- (49) ---- (70) ---(5) ---- (47) MONTHLY SUMMARY (AUG) 0.000 4.171 19.612 1235602. ٥. 0. 0.000 128.600 1509836. 19.612 ٥. 27.118 4.171 ΜX ο. 8309.295 3103.449 36250.195 1033673536. 14591.033 ٥. ٥. SM 11.168 ٥. 48.723 1389346. ٥. 19.612 ٥. AV MONTHLY SUMMARY (SEP) 4.171 0.000 0. 0.000 1242711. ٥. 19.612 ٥. MN 23.470 4.171 0. 19.612 ٥. 108.450 1522348. 3003.337 22050.830 996909952. 14120.354 ٥. 5203.727 SM ٥. 7.227 4.171 30.626 1384597. 0. 19.612 0. ٥. ΑV MONTHLY SUMMARY (OCT) -87899. 0.000 -541624. 0.000 1256234. -1251263. 19.612 MN 13.149 4.171 19.612 Ο. ٥. 61.329 1599287. 0. -6123826. 3103.449 -36558256. 7224.015 -480485248. 14591.033 1851.303 SM 9.710 1428795. -645814. 19.612 -8231. 2.488 4.171 -49137. ΑV MONTHLY SUMMARY (NOV) -93988. -529171. 0.000 1361226. -1251263. 19.612 MN -1251263. 19.612 0.000 4.171 0.000 1630112. MX 0. -13137228. 3003.337 -88818216. 0.000 1091117056. -900909952. 14120.354 0.000 SM -18246. -123359. 0.000 1515440. -1251264. 19.612 MONTHLY SUMMARY (DEC) 0.000 4.171 -775948. -1251263. 19.612 -152186. 0.000 1381671. 0.000 1733234. -1251263. 19.612 ٥. 0.000 4.171 MX ٥. -34816456. 3103.449 0.000 1173463808. -930940288. 14591.033 0.000 SM -46796. -1251264. 19.612 ΑV -277735. 0.000 1577236. YEARLY SUMMARY 0.000 4.171 -1251263. 19.612 -175680. 1212441. -932286. 0.000 129.395 1807260. 19.612 0. 27.624 4.171 MX 0. -154337984. 36540.609 146582.266 12870892544. -5915975680. -920416384. 171797.641 34155.461 SM 1469280. -675340. 19.612 -17618. λV -105070. 16.733

RZDOR - BLITE SOFTWARE DEVELOPMENT INC

DOE-2.1D 12/28/1995

14:45:54 SDL RUN 1

BUILDING 2786 - COMMISSARY 19603 PT. GEORGE G. MEADE READING, PAGE 1- 2 - HOURLY-REPORT SH-1 UH-1 AHU-3 UH-1 MMDDHH AHU-2 AHU-2 AHU-3 AHU-3 UH-1 TOT HTG SUPPLY HEATING TOT HTG SUPPLY HRATING HEATING COOLING BLECTRIC COIL PWR CAPACITY CAPACITY COIL PWR ELECTRIC CAPACITY CAPACITY BTU/HR BTU/HR BTU/HR KW BTU/HR BTU/HR KW BTU/HR ---- (78) ---(5) ---- (49) ---- (78) ---(5) ---- (49) ---- (78) ---- (70) MONTHLY SUMMARY (JAN) -467369. 30.794 -440973. -208683. 0.000 ٥. -266138. MN 296121. 0.000 ٥. -440973. -21364. ΜX 381620. -266138. -39499. 30.794 -71153336. 0.000 ٥. -269767232. 22911.053 -328084160. SM 252905424. -198006688. -440973. -95636. 0.000 ο. -266138. ΑV 339927. MONTHLY SUMMARY (FEB) 30.794 -266138. -507163. -440973. -345554. 0.000 ٥. MN 291753. 0.000 -266138. -11269. 30.794 -440973. -12269. ٥. 381620. MX 0.000 -296334080. -68100040. -236810224. 20693.854 224376704. -178844752. -352396. -440973. -101339. 0.000 ٥. -266138. ΑV 333894. MONTHLY SUMMARY (MAR) 30.794 -440973. -231723. 0.000 ٥. -266138. -497235. MN 273411. 0.000 ٥. -266138. 30.794 -440973. 0. 354146. MX -50751668. 0.000 -182537216. 22911.053 -328084160. 239162960. -198006688. -245346. 0.000 ٥. ΑV 321456. -266138. MONTHLY SUMMARY (APR) 30.794 -440973. -156506. 0 000 0 -266138. -455889. 276171. MN 30.794 22171.986 0.000 ٥. -266138. ٥. -440973. 0. MX 344214. -78362688. -22452656. 0.000 -317500800. 223246368. -191619376. -440973. -31184. 0.000 0. -108837. -266138. ΑV 310064. MONTHLY SUMMARY (MAY) 30.794 ٥. ο. 0.000 ٥. ٥. 257323. MN 0.000 ٥. MX 332882. ٥. Ο. 30.794 ٥. ٥. 0.000 22911.053 ٥. SM 220260912. ٥. 0. ٥. ٥. ٥. 0.000 0. ΑV 296050. MONTHLY SUMMARY (JUN) ٥. 30.794 ٥. ٥. 0.000 ٥. 256528. MN 0.000 313243. ٥. ο. 30.794 ٥. ٥. 0.000 n SM 208253088. ٥. ٥. 30.794 0. ٥. 0.000 AV 289240. MONTHLY SUMMARY (JUL) ٥. ٥. 0.000 261269. ٥. ٥. 30.794 ٥. MIN 0.000 ٥. 30.794 0. ٥. ٥. MX 318963. О. 216780688. 22911.053 ٥. ٥. 0.000 ٥. SM

ο.

30.794

BZDOB - ELITE SOFTWARE DEVELOPMENT INC

ENTECH ENGINEERING

291372.

DOR-2.1D 12/28/1995

0.000

14:45:54 SDL RUN 1

BZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/28/1995 BUILDING 2786 - COMMISSARY 14:45:54 SDL RUN 1 ENTECH ENGINEERING 19603 FT. GEORGE G. MEADE READING, - HOURLY-REPORT SH-1 UH-1 AHU-2 AHU-3 AHU-3 AHU-3 UH-1 UH-1 AHU-2 SUPPLY HRATING TOT HTG SUPPLY HEATING TOT HTG COOLING HEATING COIL PWR ELECTRIC CAPACITY COIL PWR BLECTRIC CAPACITY CAPACITY CAPACITY KW BTU/HR BTU/HR BTU/HR KW BTU/HR BTU/HR BTU/HR ----(78) ----(5) ---- (49) ---- (78) ----(78) ---(5) ---- (49) ~--- (70) MONTHLY SUMMARY (AUG) ٥. 0.000 ٥. ٥. 30.794 ٥. MN 261251. 315931. ٥. 30.794 ο. ٥. 0.000 ٥. MX 0.000 22911.053 ٥. SM 217370912. ٥. 0. ٥. 0.000 ٥. 30.794 AV 292165. ٥. ٥. MONTHLY SUMMARY (SEP) 0.000 30.794 ٥. 262467. 0. 30.794 ٥. 0.000 ο. ٥. ٥. 318411. ΜX 0.000 210073792. ٥. 22171.986 ٥. ٥. ٥. SM ٥. AV 291769. ο. ٥. 30.794 MONTHLY SUMMARY (OCT) 0.000 265266. -182623. -303667. 30.794 -440973. -266138. ٥. 0.000 ٥. 30.794 ٥. ΜX 337705. 0. -30225314. -169333760. -9799641. -102197000. 22911.053 0.000 ٥. 224329312. SM 0.000 -13172. ΑV 301518. -137362. -40625. 30.794 -227599. MONTHLY SUMMARY (NOV) 0.000 287436. -440973. -149711. -454714. 30.794 -266138. ٥. 30.794 -440973. 0.000 ٥. -266138. MX 344214. -136063648. -35014020. 0.000 -317500800. 230499264. -191619376. 22171.986 SM -440973. -48631. 30.794 -188977. ΑV 320138. -266138. MONTHLY SUMMARY (DEC) -207067. 0.000 ٥. -478265. 30.794 -266138. 292009. -266138. -5405. 30.794 -440973. -9586. 0.000 ٥. 365989. MX -63802708. 0.000 247808336. -198006688. -252059968. 22911.053 -328084160. 30.794 0.000 ٥. -338790. AV 333076. -266138. YEARLY SUMMARY 30.794 -440973. -345554. 0.000 ο. -266138. -507163. MN 256528. ٥. ٥. 30.794 0 0. 0.000 0. 381620. MX -2084921856. -321074080. -1258300544. -1185826304. 269759.156 2715067392. -238005. -36652. 0.000 -143642. -135368. AV 309939.

ENTECH ENGINEERING BZDOE - BLITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY
REPORT- PV-A EQUIPMENT SIZES WEATHER FILE- B

14:45:54 PDL RUN 1

WEATHER FILE- BALTIMORE, MD

3.900 1 1 HW-BOILER

ENTECH ENGINEERING READING, PA 19603 FT. GEORGE G. MEADE REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY

BZDOB - BLITE SOFTWARE DEVELOPMENT INC

DOB-2.1D 12/28/1995 BUILDING 2786 - COMMISSARY

14:45:54 PDL RUN 1

WEATHER FILE- BALTIMORE, MD

SOURCE SITE BNBRGY 6 7 9 10 11 12 13 14 4 5 3 2 TOTAL RLEC FUEL TOTAL TOTAL TOTAL TOTAL TOTAL WASTED FUEL BLBC FUEL INPUT INPUT INPUT INPUT FUEL. SITE SOURCE RCVRED RCVRABL HEAT COOLING BLECTR ENERGY COOLING COOLING HEATING HEATING RLECT INPUT ENERGY \* ENERGY LOAD ENERGY LOAD MONTH LOAD -----1012.8 55.0 0.0 1012.8 1493.9 \* 2457 6 481.1 0.0 JAN 639.8 0.0 140.9B O.OR 16.1B 0.0 0.0 0.0 867.6 46.8 0.0 867.6 1291.6 \* 2140.8 0.0 424.0 FEB 550.6 124.2B 0.08 13.78 0.0 0.0 36.0 0.0 594.0 1058.1 \* 1987.5 464.0 0.0 MAR 368.6 0.0 135.9B 0.08 10.5E 236.7 668.1 \* 1532.2 0.0 0.0 0.0 APR 145.5 0.0 431.4 0.0B 5.28 126.3B 0.0 468.0 \* 1405.4 0.0 0.0 0.0 0.0 MAY 0.0 0.0 468.0 0.0 137.18 0.0E 0.08 0.0 538.7 \* 1617.7 0.0 - 0.0 538.7 0.0 0.0 0.0 JUN 0.0 0.0 0.08 0.08 157.8B 0.0 581.6 \* 1746.5 0.0 0.0 0.0 581.6 0.0 JUL 0.0 0.0 0.0B 0.08 170.3E 0.0 0.0 0.0 579.9 \* 1741.4 579.9 0.0 0.0 0.0 AUG 0.0 0.0 169.8E 0.0E 0.08 497.9 0.0 0.0 0.0 0.0 0.0 0.0 497.9 \* 1495.3 SEP 0.0 0.0 145.8E O.OE 0.08 458.2 0.0 0.0 0.0 142.9 10.3 0.0 142.9 601.1 \* 1518.9 0.0 87.5 0.0 OCT 134.2E 0.08 3.0E 885.3 \* 1738.3 0.0 0.0 0.0 459.5 29.5 0.0 459.5 425.8 NOV 282.0 0.0 124.7E O.OE 8.78 1381.2 \* 2325.0 0.0 0.0 0.0 910.0 51.9 0.0 910.0 0.0 DEC 566.6 15.28 0.08 138.0E 247.2 4223.4 10045.3 \* 21706.6 0.0 0.0 2640.7 0.0 5821.9 0.0 0.0 0.0 4223.4 0.08 72.4B 1705.1E

NOTE -- ALL ENTRIES ARE IN METU EXCEPT ENTRIES POLLOWED BY E ARE IN MWH (THOUSANDS OF KWH)

ENTECH ENGINEERING BZDOB - BLITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/28/1995 14:45:54 FDL RUN 1
READING, PA 19603 PT. GBORGE G. MEADE BUILDING 2786 - COMMISSARY
REPORT- PS-B MONTHLY PEAK AND TOTAL ENERGY USE WEATHER PILE- BALTIMORE, MD

МО	UTILITY-	BLECTRICITY	NATURAL-GAS
	TOTAL (MBTU)	481.123	1012.774
JAN	PEAK (KBTU)	872.047	2462.254
0,4	DY/HR	17/10	17/ 4
	TOTAL (MBTU)	423.986	867.612
FEB	PEAK (KBTU)	872.892	2662.850
	DY/HR	12/13	12/6
	TOTAL (MBTU)	464.031	594.035
MAR	PEAK (KBTU)	872.123	2280.533
	DY/HR	4/10	4/4
	TOTAL (MBTU)	431.408	236.697
APR	PEAK (KBTU)	871.708	1853.773
	DY/HR	8/11	8/2
	TOTAL (MBTU)	467.986	0.000
MAY	PEAK (KBTU)	1080.173	0.000
	DY/HR	21/17	31/ 1
	TOTAL (MBTU)	538.704	0.000
JUN	PEAK (KBTU)	1299.412	0.000
	DY/HR	10/16	30/ 1
	TOTAL (MBTU)	581.574	0.000
JUL	PEAK (KBTU)	1314.088	0.000
	DY/HR	25/17	31/ 1
	TOTAL (MBTU)	579.889	0.000
AUG	PEAK (KBTU)	1309.648	0.000
	DY/HR	18/17	31/ 1
	TOTAL (MBTU)	497.925	0.000
SEP	PEAK (KBTU)	1227.916	0.000
•	DY/HR	1/17	30/ 1
	TOTAL (MBTU)	458.227	142.872
OCT	PEAK (KBTU)	1032.259	1752.659
	DY/HR	13/16	16/ 2
	TOTAL (MBTU)	425.829	459.496
NOV	PEAK (KBTU)	871.664	1875.556
	DY/HR	25/ 7	8/4
	TOTAL (MBTU)	471.219	909.952 2336.728
DEC	PEAK (KBTU)	872.037	2336.728
	DY/HR	6/12	22/ 3
	ONE YEAR	5821.900	4223,437
	USE/PEAK	1314.088	2662.850
	USB/ FUAL	2321.300	

ENTECH ENGINEERING EZDOE - ELITE SOPTWARE DEVELOPMENT INC DOB-2.1D 12/28/1995 14:45:54 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY
REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

HEATING LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
HW-BOILER	2640.7	100.0
	**********	*************
LOAD SATISFIED	2640.7	100.0
TOTAL LOAD ON PLANT	2640.7	
ELECTRICAL LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
ELECTRICITY	5821.9	100.0
LOAD SATISFIED	5821.9	100.0
TOTAL LOAD ON PLANT	5821.9	2000

SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISPIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
HEATING LOADS BLECTRICAL LOADS	2640.7 5821.9	2640.7 5821.9	0.000	0.000	0

ENTECH ENGINEERING EZDOR - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/28/1995 14:45:54 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER FILE- BALTIMORE, MD

	AVG	MAX	MON					
EQUIPMENT	OPER	LOAD	DAY	SIZE OPER				
	RATIO	(MBTU)	HR	(MBTU) HRS				
HW-BOILER	0.143	1.887	2 12 6	3.900 4728				

### BOILER 97.3

\*\*NOMINAL SIZE (MBTU) 3.900

\*\*NOMINAL SIZE (MBTU) 1

\*\*PIRST COST (KS) 88.3 88.3

\*\*ANNUL COST (KS) 1.1 1.1

\*\*CYCLICAL COST (KS) 7.9 7.9

\*\*COULDMENT TOTAL 97.3

\*\*EQUIPMENT TOTAL 97.3

\*\*EQUIPMENT TOTAL 97.3

\*\*EQUIPMENT TOTAL 97.3

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY

REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE WEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE MBTU -	BLECTRICITY	NATURAL-GAS
CATEGORY OF USE		
SPACE HEAT	214.32	4223.45
SPACE COOL	617.12	0.00
HVAC AUX	1667.23	0.00
DOM HOT WIR	0.00	0.00
AUX SOLAR	0.00	0.00
LIGHTS	2481.18	0.00
VERT TRANS	0.00	0.00
MISC EQUIP	841.95	0.00
TOTAL	5821.79	4223.45

TOTAL SITE ENERGY 10045.34 MBTU 84.5 KBTU/SQFT-YR GROSS-AREA 84.5 KBTU/SQFT-YR NET-AREA TOTAL SOURCE ENERGY 21706.62 MBTU 182.6 KBTU/SQFT-YR GROSS-AREA 182.6 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 0.0 PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.0

NOTE BLECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

HOURLY DATA FILE 2FROM PROG 3

REAL PH-1	ENTECH ENGINES	ERING 19603 LY-REPORT	EZDOE - ELITE PT. GEORGE G.	DEVELOPMENT	INC	DOB-2.1D BUILDING 2786 -	14:45:54	RUN 1
MMDDHH	HW-BOILE	HW-BOILE	HW-BOILE					
	R	R	R					
	LOAD	ELECTRIC	FURL.					
		USE	USB					
	BTU/HR	BTU/HR	BTU/HR					
	220,-24							
	( 1)	{ 3}	(4)					
	,							
MONTHLY	SUMMARY (JAN)							
MN	75675.	6659.	123663.					
MX	1712924.	85800.	2462254.					
	639801792.	49858152.	1012774464.					
AV		67014.						
	<b>4227</b>							
MONTHLY	SUMMARY (FEB)							
MIN	36024.	3170.	58868.					
MX	1886692.	85800.						
SM		42154716.	867611904.					
AV	819414.	62730.	1291089.					
MONTHLY	SUMMARY (MAR)							
MON	12487.	1099.	20405.					
MX	1556644.	85800.	2280533.					
SM	368596448.	30793394.	594034496.					
ΑV	495425.	41389.	798433.					
MONTHLY	SUMMARY (APR)							
MN	12487.	1099.	20405.					
MCC	1193751.	85800.	1853773.					
SM	145517984.	12586482.	236697232.					
AV	202108.	17481.	328746.					
MONTHLY	SUMMARY (OCT)							
MN	12487.	1099.	20405.					
MX	1108595.	85800.	1752659.					
SM	87501944.	7676449.	142871696.					
λV	227870.	19991.	372062.				-	
	SUMMARY (NOV)		****					
MN	12487.	1099.						
MX	1212138.	85800.	1875556.					
SM	282023552.	24544474.						
AV	391699.	34090.	638188.					
	Y SUMMARY (DEC)	2745	50978.					
MN	31196. 1604858.	2745. 85800.	2336728.					
MX		46707036.	909951936.					
SM	566604544.	62778.	1223054.					
AV	761565.	04//8.	1223034.					

PH-1	BADING, PA	NEERING 19603 URLY-REPORT	EZDOR - ELITE PT. GEORGE G.	SOFTWARE DEVELOPMENT MEADE	INC	DOR-2.1D BUILDING 2786 -	12/28/1995 COMMISSARY	PDL PAGE	
	HW-BOILE	HW-BOILE	HW-BOILE					 	 •
	R	R	R						
	LOAD	BLECTRIC	FUEL						
		USE	USE				-		
	BTU/HR	BTU/HR	BTU/HR						
	( 1)	(3)	(4)						
YEARL	Y SUMMARY								
MIN	12487.	1099.	20405.						
MIX	1886692.	85800.	2662850.						
SM	2640692224.	214320704.	4223437312.						
AV	558522.	45330.	893282.						

rea SH-1	DING, PA	ERING 19603 LLY-REPORT		LITE SOFTWARE D	EVELOPMENT INC		1D 12/28/1995 6 - COMMISSARY	
MMDDHH	AHU-1	AHU-1	AHU-1	AHU-1	AHU-1	AHU-2	AHU-2	AHU-2
	TOT HTG COIL PWR BTU/HR	COOLING ELECTRIC KW	COOLING CAPACITY BTU/HR	HEATING CAPACITY BTU/HR	SUPPLY BLECTRIC KW	TOT HTG COIL PWR BTU/HR	COOLING BLECTRIC KW	SUPPLY ELECTRIC XW
	(5)	(47)	(70)	(78)	(49)	(5)	(47)	(49)
MONTHLY	SUMMARY (JAN)							
MN	-796272.	0.000	1402355.	-1251263.	19.612	-154179.	0.000	4.171
MX	٥.	0.000	1807260.	-1251263.	19.612	٥.	0.000	4.171
SM	-161509056.	0.000	1197682688.	-930940288.	14591.033	-25545264.	0.000	3103.449
VA	-217082.	0.000	1609789.	-1251264.	19.612	-34335.	0.000	4.171
MONTHLY	SUMMARY (PEB)							
MIN	-926359.	0.000	1381671.		19.612	-165836.	0.000	4.171
MX	0.	0.000	1807260.		19.612	0.	0.000	4.171
SM	-127814968.	0.000	1062603520.	-840849280.	13178.997	-20154952.	0.000	2803.115
AV	-190201.	0.000	1581255.	-1251264.	19.612	-29992.	0.000	4.171
	SUMMARY (MAR)							
MN	-597228.	0.000	1294808.		19.612	-108530.	0.000	4.171
MX	0.	0.000	1677148.		19.612	0.	0.000	4.171
SM	-53136948.	0.000		-930940288.	14591.033	-6627361.	0.000	3103.449
AV	-71421.	0.000	1522968.	-1251264.	19.612	-8908.	0.000	4.171
	Y SUMMARY (APR)							
MIN	-445663.	0.000	1307878.		19.612	-76990.	0.000	4.171
MX	٥.	0.000	1630112.		19.612	0.	0.000	4.171
SM	-10842826.	0.000	1061273024.		14120.354	-806402.	0.000	3003.337
AV	-15059.	0.000	1473990.	-1251264.	19.612	-1120.	0.000	4.171
	Y SUMMARY (MAY)			_		_		
MN	0.	0.000	1218618.	0.	19.612	0.	0.000	4.171
MX	0.	72.850	1576448.			0.	16.432	4.171
SM	0.	14319.586		0. 0.		0.	3546.782	3103.449
AV	0.	19.247	1398335.	0.	19.612	0.	4.767	4.171
MONTHL	Y SUMMARY (JUN)							
MIN	0.	0.000	1212441.	0.	19.612	0.	0.000	4.171
MOX	0.	125.864	1474038.	0.	19.612	0.	26.821	4.171
SM	0.	29984.043	975496192.	٥.	14120.354	0.	6896.226	3003.337
AV	٥.	41.645	1354856.	٥.	19.612	0.	9.578	4.171
	Y SUMMARY (JUL)							
MIN	0.	5.181	1208709.	0.	19.612	٥.		4.171
MX	٥.	129.083	1502728.	0.	19.612	0.	27.546	4.171
SM	٥.	37795.027	1006843392.	0.	14591.033	0.	8526.353	3103.449
AV	0.	50.800	1353284.	0.	19.612	0.	11.460	4.171

DOB-2.1D 12/28/1995 BUILDING 2786 - COMMISSARY READING, 19603 FT. GEORGE G. MEADE PAGE 2- 1 - HOURLY-REPORT ...... AHU-1 AHU-1 AHU-1 AHU-1 AHU-2 AHU-2 AHTI-2 AHU-1 HEATING SUPPLY TOT HTG COOLING SUPPLY COOLING COOLING TOT HIG CAPACITY CAPACITY ELECTRIC COIL PWR ELECTRIC ELECTRIC COIL PWR BLECTRIC BTU/HR KW BTU/HR KW BTU/HR BTU/HR KW ---- (70) ---- (78) ---- (49) ---(5) ---- (47) ---- (49) ----(5) MONTHLY SUMMARY (AUG) 0.000 1235635. 0. 19.612 ٥. 0.000 4.171 MN 0. 27.127 4.171 ٥. 128.632 1492086. ۵. 19.612 0. MX 1012746688. ٥. 14591.033 ٥. 35445.863 SM ٥. 1361219. ٥. 19.612 ٥. 10.861 4.171 47.642 ΑV ο. MONTHLY SUMMARY (SEP) 1242711. ٥. 19.612 0. 0.000 4.171 0.000 MN ٥. 19.612 14120.354 MX ٥. 108.439 1494753. ٥. ٥. 23.466 4.171 5301.977 3003.337 983612096. ٥. ٥. ο. 22611.785 7.364 1366128. 19.612 31.405 ΑV 0. MONTHLY SUMMARY (OCT) 0.000 1256234. -1251263. 19.612 -66123. 0.000 4.171 MN -367654. 63.362 1599287. ٥. 19.612 0. 13.469 2268.996 4.171 О. ΜX -480485248. -1959449. 3103.449 -15177657. 8952.771 1061137472. 14591.033 1426260. -645814. -2634. 3.050 4.171 12.033 ΑV -20400. MONTHLY SUMMARY (NOV) 0.000 1361226. -1251263. 19.612 -74832. 0.000 4.171 -421376. MN 0.000 0.000 4.171 ٥. 1630112. -1251263. 19.612 ٥. MX 1093123968. -900909952. 14120.354 0.000 3003.337 -38009116. SM ΑV -52790. 0.000 1518228. -1251264. 19.612 -5208. 0.000 4.171 MONTHLY SUMMARY (DEC) -663102. -123455. 0.000 4.171 0.000 1381671. -1251263. 19.612 MN -1251263. 19.612 0.000 1733234. 0. MX 0. 0.000 -17948170. -124808720. 0.000 1173836672. -930940288. 14591.033 0.000 3103.449 SM AV -167754. 0.000 1577738. -1251264. 19.612 -24124. 0.000 4.171 YEARLY SUMMARY

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EZDOE - ELITE SOPTWARE DEVELOPMENT INC

ENTECH ENGINEERING

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15: 2:45 SDL RUN 1

19603 PT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY PA READING, SH-1 - HOURLY-REPORT PAGE 1- 2 \_\_\_\_\_ AHU-3 AHU-3 UH-1 UH-1 AHU-3 AHU-2 MMDDHH AHU-2 SUPPLY TOT HTG SUPPLY HRATING COOLING HEATING TOT HTG HEATING. ELECTRIC CAPACITY COIL PWR BLECTRIC CAPACITY COIL PWR CAPACITY CAPACITY BTU/HR BTU/HR КW BTU/HR BTU/HR BTU/HR BTU/HR ----(49) ---- (78) ----(5) ---- (49) ---- (78) ----(5) ---- (70) ---- (78) MONTHLY SUMMARY (JAN) 296121. -266138 -467300. 30.794 -440973. -208656. 0.000 ٥. 30.794 0.000 -39111. -440973. -21276. -266138. 0. MX 381620. -269698560. 22911.053 -328084160. -71045960. 0.000 ٥. 252910096. -198006688. SM -266138. -362498. 30.794 -440973 -95492 0.000 ٥. AV 339933. MONTHLY SUMMARY (FEB) 291753. -266138. -507119. 30.794 -440973. -345525. 0.000 ٥. -11138. 30.794 -440973. -12159. 0.000 ٥. -266138. ΜX 381620. -236749184. -178844752. 20693.854 -296334080. -67995200. 0.000 224388192. SM -266138. -352305. 30.794 -440973. -101183. 0.000 ٥. AV 333911. MONTHLY SUMMARY (MAR) 273411. -266138. -497251. 30.794 -440973. -231511. 0.000 0. MN 0.000 30.794 -440973. 0. MX 354146. -266138. 0. ٥. -182124000. 22911.053 -328084160. -50218900. 0.000 -198006688. SM 239373840. -266138. -244790. 30.794 -440973. -67499. 0.000 0. ΑV 321739. MONTHLY SUMMARY (APR) 277437. MN -266138. -455914. 30.794 -440973 -156386. 0.000 ٥. 30.794 -440973. 0.000 ٥. MX 347977. -266138. 0. 0. -317500800. -191619376. -77506048. 22171.986 -21161056. 0.000 0. 224885856. SM 312341. -266138. -107647. 30.794 -440973 -29390. 0.000 ٥. AV MONTHLY SUMMARY (MAY) 257323. ٥. ٥. 30.794 ο. ο. 0.000 ٥. 30.794 ٥. 0.000 ٥. ٥. Ο. ΜX 332882. ٥. 22911.053 ٥. ٥. 0.000 ٥. 219456064. SM 30.794 0.000 ٥. ΑV 294968. 0. ٥. 0. ٥. MONTHLY SUMMARY (JUN) 30.794 0.000 0. 256537. ٥. ο. 0. ٥. ٥. 30.794 0.000 ٥. 308314. ٥. ΜX 0. ο. 22171.986 ٥. ο. 0.000 ٥. 0.000 30.794 ΑV 285172. 0. Ο. ٥. MONTHLY SUMMARY (JUL)

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EZDOE - ELITE SOFTWARE DEVELOPMENT INC

ENTECH ENGINEERING

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DOR-2.1D 12/28/1995

15: 2:45 SDL RUN 1

ENTECH ENGINEERING EZDOE - ELITE SOPTWARE DEVELOPMENT INC DOE-2.1D 12/28/1995 15: 2:45 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY

SH-1	DING, PA	RLY-REPORT	rr. Gaeros	G. (		DULLDLING T.	PAGE 2- 2	
	AHU-2	AHU-2	AHU-3	AHU-3	AHU-3	UH-1	UH-1	UH-1
	COOLING CAPACITY BTU/HR	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY ELECTRIC KW	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY BLECTRIC . KW	HEATING CAPACITY BTU/HR
	(70)	(78)	(5)	(49)	(78)	(5)	(49)	(78)
MONTHLY	SUMMARY (AUG)							
MN	261261.	0.	0.	30.7 <del>94</del>	0.	٠٠.	0.000	0.
MX	311538.	0.	0.	30.794	0.	0.	0.000	0.
SM	212904480.	0.	0.	22911.053	0.	0.	0.000	٥.
VA	286162.	0.	٥.	30.794	0.	٥.	0.000	0.
MONTHLY	SUMMARY (SEP)							
MIN	262467.	. 0.	0.		0.	0.	0.000	0.
MX	315631.	٥.	0.		0.	0.	0.000	0.
SM	207314192.	٥.		22171.986	0.	٠.	0.000	0.
AV	287936.	0.	0.	30.794	0.	٥.	0.000	0.
MONTHLY	SUMMARY (OCT)							
MN	265266.		-303520.	30.794		-174055.	0.000	0.
MX	337705.			30.794		0.	0.000	0.
SM	223864448.						0.000	0.
VA	300893.	-137362.	-40577.	30.794	-227599.	-13048.	0.000	0.
MONTHLY	SUMMARY (NOV							
MM	288869.		-454713.				0.000	0.
MX	344918.	-266138.	0.		-440973.		0.000	0.
SM			-135494016.		-317500800.		0.000	0.
AV	320898.	-266138.	-188186.	30.794	-440973.	-47672.	0.000	0.
MONTHLY	SUMMARY (DEC							
MON		-266138.		30.794			0.000	0.
MX	365989.			30.794			0.000	0.
SM	247892096.			22911.053			0.000	0.
VA	333188.	-266138.	-338675.	30.794	-440973.	-85609.	0.000	0.
	SUMMARY							_
MIN	254821.			30.794			0.000	0.
MX	381620.			30.794	0.	0.	0.000	0.
SM			-1183734784.		-2084921856.	-318146016.	0.000	0.
AV	308341.	-143642.	-135130.	30.794	-238005.	-36318.	0.000	0.

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/28/1995 15: 2:45 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY
REPORT- PV-A EQUIPMENT SIZES WEATHER FILE- BALTIMORE, MD

NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER
EQUIPMENT SIZE INSTO SIZE INSTO SIZE INSTO SIZE INSTO SIZE INSTO
(MBTU/H) AVAIL (MBTU/H) AVAIL (MBTU/H) AVAIL (MBTU/H) AVAIL (MBTU/H) AVAIL (MBTU/H) AVAIL (MBTU/H) AVAIL

HW-BOILER 3.900 1 1

ENTIRCH ENGINEERING EZDOR - BLITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/28/1995 15: 2:45 PDL RUN 1 READING, PA 19603 PT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY
REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY WEATHER FILE- BALTIMORE, MD

SITE ENERGY SOURCE 3 9 10 11 12 13 14 2 TOTAL TOTAL TOTAL WASTED FURL. KLRC FURL. RLRC FURL TOTAL TOTAL. TOTAL. RCVRED RCVRABL INPUT INPUT INPUT FUEL SOURCE ELECTR INPUT INPUT HEAT COOLING SITE ENBRGY ENERGY COOLING COOLING HEATING HEATING BLECT INPUT ENERGY ENERGY LOAD LOAD MONTH LOAD 475.9 0.0 0.0 864.4 1340.3 2293.5 537.0 0.0 JAN 139.4B 0.08 14.6B 419.4 0.0 0.0 738.1 42.2 738.1 1157.5 1997.5 PEB 461.1 0.0 122.88 0.0B 12.4B 459.2 490.0 31.2 490.0 0.0 0.0 0.0 949.3 1869.1 MAR 301.3 0.0 134.5E 0.08 9.18 429.3 0.0 0.0 0.0 0.0 194.8 15.4 0.0 194.8 624.0 1483.8 0.0 APR 119.3 0.0E 4.5E 477.8 0.0 0.0 0.0 0.0 477.8 0.0 0.0 0.0 0.0 0.0 1434.9 MAY 0.0 0.08 0.02 539.6 0.0 539.6 \* 1620.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 JUN 0.0 0.08 0.08 575.0 0.0 0.0 575.0 1726.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 JUL 0.0 168.4B 0.08 0.0B 0.0 1730.8 576.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 AUG 0.0 0.0 168.8B 0.08 0.08 500.2 0.0 0.0 0.0 0.0 0.0 0.0 500.2 1502.0 0.0 0.0 SEP 146.5B 0.08 0.08 463.3 0.0 0.0 0.0 0.0 101.0 8.1 0.0 101.0 564.3 1492.3 61.8 0.0 OCT 135.7E a.or 2.48 420.6 0.0 0.0 0.0 0.0 360.3 24.4 0.0 360.3 780.9 1623.4 220.5 0.0 NOV 123.28 O.OR 7.1B DEC 467.7 0.0 464.8 0.0 0.0 0.0 0.0 759.9 45.4 0.0 759.9 1224.7 2155.6 0.08 13.3E 136.18 0.0 216.5 9309.9 \* 20930.1 5801.4 0.0 0.0 0.0 3508.4 0.0 3508.4 0.0 2168.6 1699.1B 0.08 63.4E

NOTE-- ALL ENTRIES ARE IN METU EXCEPT
ENTRIES FOLLOWED BY E ARE IN MWH (THOUSANDS OF KWH)

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/28/1995 15: 2:45 PDL RUN 1
READING, PA 19603 PT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY
REPORT- PS-B MONTHLY PEAK AND TOTAL ENERGY USE WEATHER FILE- BALTIMORE, MD

MO	UTILITY-	BLECTRICITY	NATURAL-GAS	
	TOTAL (MBTU)		864.403	
JAN	PEAK (KBTU)	872.004	2302.818	
	DY/HR	17/10	16/20	
	TOTAL (MBTU)	419.370 872.849	738.108	
PEB	PEAK (KBTU)	872.849	2649.592	
	DY/HR	12/13		
	TOTAL (MBTU)	459.241	490.018	
MAR	PEAK (KBTU)	872.080	2030.293	
	DY/HR	872.080 4/10	5/8	
	TOTAL (MBTU)	429.255	194.772	
מס מ	PEAK (KBTU)	871.665		
ALK	DY/HR	8/11	9/ 6	
	TOTAL (MBTU)	477 836	0.000	
MXV	PEAK (KETU)	477.836 1080.878	0.000	
PLALI	DY/HR	21/17	31/ 1	
	DI/AR	11/1/	31/ 1	
	TOTAL (MBTU)	539.600	0.000	
JUN	PEAK (KBTU)	1299.290	0.000	
	DY/HR	10/16	30/ 1	
	* TOTAL (MBTU)	574.993	0.000	
JUL	PEAK (KBTU)	1312.758	0.000	
	DY/HR	25/17	31/ 1	
	TOTAL (MBTU)	576.361	0.000	
AUG	TOTAL (MBTU) PEAK (KBTU)	1309.787	0.000	
	DY/HR	18/17	31/ 1	
	TOTAL (MBTU)	500.176	0.000	
SEP	PEAK (KBTU)	1227.869	0.000	<u>-</u>
	DY/HR	1/17	30/ 1	
	TOTAL (MBTU)	463.301	100.989	
OCT	PEAK (KBTU)	1040.291	1301.045	
	DY/HR	13/16	28/ 6	
	TOTAL (MBTU)	420.635	360.250	
NOV	PEAK (XBTU)	871.621	1716.258	
	DY/HR	25/ 7	25/ 6	
	TOTAL (MBTU)	464.774	759.890	
DEC			2084.711	
	DY/HR	6/12	21/ 6	
	ONE YEAR	5801.429	3508.430	•
	USE/PEAK	1312.758	2649.592	
	,			

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDIN
REPORT- PS-D PLANT LOADS SATISFIED

15: 2:45 PDL RUN 1

DOB-2.1D 12/28/1995 15: 2:45 PDL RUN 1 BUILDING 2786 - COMMISSARY WEATHER FILE- BALTIMORE, MD

HEATING LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
HW-BOILER	2168.7	100.0
		*************
LOAD SATISFIED TOTAL LOAD ON PLANT	2168.7 2168.7	100.0
ELECTRICAL LOADS	METU SUPPLIED	PCT OF TOTAL LOAD
ELECTRICITY	5801.4	100.0
LOAD SATISFIED	5801.4 5801.4	100.0

SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PRAK OVERLOAD (MBTU)	HOURS OVERLOADED
HEATING LOADS ELECTRICAL LOADS	2168.7 5801.4	2168.7 5801.4	0.000	0.000	o o

ENTECH ENGINEERING EZDOE - ELITE SOFTMARE DEVELOPMENT INC DOB-2.1D 12/28/1995
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY
REPORT- PS-H EQUIPMENT USE STATISTICS REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER FILE- BALTIMORE, MD

15: 2:45 PDL RUN 1

-----MAX MON AVG LOAD DAY SIZE OPER SIZE OPER SIZE OPER SIZE OPER SIZE OPER (MBTU) HR (MBTU) HRS (MBTU) HRS (MBTU) HRS (MBTU) HRS (MBTU) HRS OPER LOAD EQUIPMENT RATIO (MBTU) HW-BOILER 0.118 1.875 2 12 6 3.900 4728

BRIECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/28/1995 15: 2:45 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY
REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE WEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE MBTU - BLECTRICITY NATURAL-GAS CATEGORY OF USE SPACE HEAT 183.86 3508.42 627.33 SPACE COOL 0.00 HVAC AUX 1667.00 0.00 DOM HOT WTR 0.00 0.00 AUX SOLAR 0.00 LIGHTS 2481.16 0.00 VERT TRANS 0.00 0.00 MISC EQUIP 841.95

TOTAL SITE ENERGY 9309.86 MBTU 78.3 KBTU/SQFT-YR GROSS-AREA 78.3 KBTU/SQFT-YR NBT-AREA TOTAL SOURCE ENERGY 20930.14 MBTU 176.1 KBTU/SQFT-YR GROSS-AREA 176.1 KBTU/SQFT-YR NBT-AREA

3508.42

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 0.0 PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.0

5801.29

TOTAL

NOTE "ELECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

HOURLY DATA FILE 2FROM PROG 3

REA	ENTECH ENGINE DING, PA	BERING 19603 LLY-REPORT	EZDOB - ELIT FT. GEORGE G	 DEVELOPMENT	INC	DOB-2.1D BUILDING 2786 -	12/28/1995 COMMISSARY	15:	PDL PAGE	
MMDDHH			HW-BOILE							
	R	R	R							
	LOAD		FUEL							
		USB	USB							
	BTU/HR	BTU/HR	BTU/HR							
	(1)	(3)	(4).							
MONTHLY	SUMMARY (JAN)									
MIN	74683.	6572.	122042.							
MOX	1575751.	85800.	2302818.							
	537032192.		864402496.							
AV	721817.	60022.								
MONTHI.V	Y SUMMARY (FEB)									
MIN	35707.	3142.	58351.							
MX	1875165.									
SM	461054112.		738108416.							
AV	686092.		1098376.							
MONTHEE	Y SUMMARY (MAR)									
MN	12410.	1092.	20280.							
MX	1343164.	85800.								
SM	301340576.		490018400.							
AV	405028.							-		
	Y SUMMARY (APR)		20280.							
MN	12410.	85800.								
MX										
SM		10473671. 14547.	270516.							
AV	165628.	14547.	270516.							
	Y SUMMARY (OCT)									
MN	12410.	1092.								
MX	796165.									
SM	61799536.		100989072. 262992.							
AV	160936.	14162.	262992.							
	Y SUMMARY (NOV)									
MIN			20280.							
MX		85800.								
SM		19385560.								
AV	306267.	26924.	500348.							
	Y SUMMARY (DEC)									
MIN										
MX	1389420.	85800.								
SM		40294612.								
VA	628572.	54159.	1021358.							

ENTECH READING, PH-1	ENGINEERING PA 19603 HOURLY-REPORT	EZDOR - ELITE FT. GEORGE G.	SOFTWARE DEVELOPMENT INC MRADE	DOB-2.1D BUILDING 2786 -	12/28/1995 COMMISSARY	15: 2:49	PDL RUI	
HW-BOI	LE HW-BOILE	HW-BOILE						
R	R	R						
LOAD	ELECTRIC	FUEL						
	USE	USE						
BTU/HR	BTU/HR	BTU/HR						
(	1)(3)	(4)						
YEARLY SUMMARY								
MN 1	.2410. 1092.	20280.						
MX 187	S165. 85800.	2649592.						
SM 216864	8192. 183855184.	3508430848.						
217 45	2000	747054						

•

RRAI SH-1	ENTECH ENGINE DING, PA = HOURI	ERING 19603 LY-REPORT	EZDOE - EL FT. GEORGE		DEVELOPMENT INC		1D 12/28/1995 6 - COMMISSARY		SDL PAGE	
MDDHH	AHU-1	AHU-1	AHU-1	AHU-1	AHU-1	AHU-2	AHU-2	AHU-2		
	TOT HTG COIL PWR BTU/HR	COOLING BLECTRIC KW	COOLING CAPACITY BTU/HR	HEATING CAPACITY BTU/HR	SUPPLY BLECTRIC KW	TOT HTG COIL PWR BTU/HR	COOLING ELECTRIC KW	SUPPLY BLBCTRIC KW		
	(5)	(47)	(70)	(78)	(49)	( 5)	(47)	(49)		
MONTHLY	SUMMARY (JAN)									
MN	-1135218.	0.000	1409303.	-1251263.	19.612	-243149.	0.000	4.171		
MX	0.	0.000	1807260.	-1251263.	19.612	٥.	0.000	4.171		
SM	-157045680.	0.000	719373184.	-563068544.	8825.219	-25990538.	0.000	1877.084	l .	
AV	-348990.	0.000	1598607.	-1251263.	19.612	-57757.	0.000	4.177		
MONTHLY	SUMMARY (PEB)									
MN	-1146109.	0.000	1381671.	-1251263.	19.612	-233735.	0.000	4.171		
MX	0.	0.000	1807260.	-1251263.	19.612	٥.	0.000	4.171		
SM	-123299944.	0.000	615830272.	-491746560.	7707.358	-20355062.	0.000	1639.320	)	
AV	-313740.	0.000	1566998.	-1251264.	19.612	-51794.	0.000	4.171		
MONTHLY	SUMMARY (MAR)									
MN	-878154.	0.000	1294808.	-1251263.	19.612	-165338.	0.000	4.171		
MX	0.	0.000	1669242.		19.612	0.	0.000	4.17		
SM	-56846028.	0.000	681274304.	-566822400.	8884.054	-7708007.	0.000	1889.598	3	
AV	-125488.	0.000	1503917.	-1251264.	19.612	-17015.	0.000	4.171		
MONTHLY	SUMMARY (APR)									
MN	-635343. °	0.000	1307878.	-1251263.	19.612	-109021.	0.000	4.171		
MOX	0.	0.000	1630112.	-1251263.	19.612	٥.	0.000	4.171		
SM	-12988204.	0.000	637384704.	-548053376.	8589.880	-1153396.	0.000	1827.028	3	
AV	-29653.	0.000	1455216.	-1251263.	19.612	-2633.	0.000	4.171	L	
MONTHLY	SUMMARY (MAY)									
MIN	0.	0.000	1218618.	0.	19.612	0.	0.000	4.171		
MX	0.	76.020	1568888.	0.	19.612	0.	16.685	4.17	L	
SM	0.	11585.011	603216960.	0.	8531.045	٥.	2906.422	1814.515		
AV	٥.	26632	1386706.	0.	19.612	_ 0.	6.681	4.173		
MONTHLY	SUMMARY (JUN)									
MN		0.000						4.17		
MX	0.	130.339	1472445.	0.	19.612	0.		4.171		
SM	0.	25695.783	590365696.	'0.		0.				
AV	0.	58.666	1347867.	0.	19.612	0.	13.578	4.17		
	Y SUMMARY (JUL)									
MIN	0.	12.462		0.		0.				
MOX	0.	135.709								
SM	0.		588961664.	٥.			7274.954	1814.515		
AV	0.	73.251	1353935.	0.	19.612	0.	16.724	4.17		

EZDOE - ELITE SOFTWARE DEVELOPMENT INC ENTECH ENGINEERING BUILDING 2786 - COMMISSARY 19603 FT. GEORGE G. MEADE READING, PA 19603 - HOURLY-REPORT PAGE 2- 1 SH-1 AHU-1 AHU-2 AHU-2 AHU-1 AHU-2 AHU-1 AHU-1 AHU-1 TOT HTG COIL PWR TOT HTG COOLING COOLING HEATING SUPPLY COOLING STIPPI.Y CAPACITY BLECTRIC ELECTRIC ELECTRIC RLECTRIC CAPACITY COIL PWR BTU/HR BTU/HR BTU/HR KW BTU/HR ---- (78) ----(5) ---- (47) ---( 5) ---- (47) ---- (70) --- (49) ---- (49) MONTHLY SUMMARY (AUG) 0.765 1237030 ο. 19.612 ٥. 4.171 0.000 27.989 1472355. ٥. 19.612 ٥. 4.171 132.263 MX ٥. 30510.770 614245952. ٥. 8884.054 ٥. 7020.851 1889.598 SM 0. AV 0. 67.353 1355951. ٥. 19.612 0. 15.499 4.171 MONTHLY SUMMARY (SEP) ٥. 0.000 1242917. ٥. 19.612 ٥. 0.000 4.171 25.428 ΜX 0. 113.617 1494753. 0. 19.612 Ο. 4.171 8295.706 1764.459 18914.748 574903872. 4481.602 SM 0. AV 44.716 1359111. 0. 19.612 ٥. 10.595 4.171 MONTHLY SURMARY (OCT) 0.000 1267978. -1251263. 19.612 -66798. 0.000 4.171 ~373808. MN 64.021 1599287 0. 19.612 **a** . 13.753 4.171 -289041760. -1136356. -9505911. 612805440. 8531.045 1859.837 1814.515 7240.162 SM 1408748. -664464. -2612. -21853. ΑV MONTHLY SUMMARY (NOV) 0.000 1361226. -1251263. 19.612 -151382. 0.000 4.171 -795248. MN 0. 0.000 1630112. -1251263. 19.612 0. 0.000 4.171 -510515520. -3926627. 1701.890 -36386940. 0.000 612990848. 8001.532 SM 0.000 1502429. -1251264. 19.612 -9624. 0.000 AV -89184. MONTHLY SUMMARY (DEC) -945665. 0.000 1381671. -1251263. 19.612 -183024. 0.000 4.171 1733234. -1251263. 0.000 19.612 4.171 0.000 ٥. MX 0. -122583696. 0.000 684461312. -548053376. 8589.880 -18270242. 0.000 1827.029 SM 0.000 1562697. -1251263. 19.612 -41713. 0.000 4.171 YEARLY SUMMARY -1146109. 0.000 1212441. -1251263. 19.612 -243149. 0.000 4.171 19.612 28.969 4.171 MX ٥. 135,709 1807260. ٥. ٥. 7535814656. -3517301248. -518656384. 125810.852 101960.695 -78540232. 29490.609 21686.580 SM AV -99761. 24.199 1449474. -676534. 19.612 -15107. 5.672 4.171

DOR-2.1D 12/28/1995

15:28:25 SDL RUN 1

ENTECH ENGINEERING EZDOB - BLITE SOPTWARE DEVELOPMENT INC DOB-2.1D 12/28/1995 15:28:25 SDL RUN 1
READING, PA 19603 PT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY

MONTHLY SI	AHU-2 COOLING CAPACITY BTU/HR	AHU-2  HEATING CAPACITY BTU/HR	AHU-3 TOT HTG	AHU-3	AHU-3	UH-1	UH-1	_	AGE 1-
MONTHLY SI	AHU-2 COOLING CAPACITY BTU/HR	AHU-2 HEATING CAPACITY	AHU-3 TOT HTG						
MONTHLY SI	CAPACITY . BTU/HR	CAPACITY					-	On-I	
MONTHLY SI	BTU/HR			SUPPLY	HEATING	TOT HTG	SUPPLY	HEATING	
MONTHLY SI	BTU/HR	BTU/HR	COIL PWR	ELECTRIC	CAPACITY	COIL PWR	ELECTRIC	CAPACITY	
MONTHLY SI MN MX	(70)		BTU/HR	KW	BTU/HR	BTU/HR	KW	BTU/HR	
MIN MIX		(78)	(5)	(49)	(78)	( 5)	(49)	(78)	
MX	CUMMARY (JAN)								
	297588.	-266138.	-460314.	30.794	-440973.	-209720.	0.000	0.	
	381620.	-266138.	-65523.	30.794	-440973.	-21678.	0.000	0.	
SM	151907504.	-119762144.	-162765808.	13857.481	-198438064.	-43695704.	0.000	0.	
AV	337572.	-266138.	-361702.	30.794	-440973.	-97102.	0.000	0.	
MONTHLY S	SUMMARY (FEB)								
MN	291753.	-266138.	-476377.	30.794	-440973.	-346055.	0.000	0.	
MX	381620.	-266138.		30.794	-440973.	-12646.	0.000	0.	
SM	130040832.	-104592272.	-135986320.	12102.201	-173302560.	-40932576.	0.000	٥.	
AV	330893.	-266138.	-346021.	30.794	-440973.	-104154.	0.000	0.	
MONTHLY S	SUMMARY (MAR)								
MN	273411.		-468503.	30,794	-440973.	-221214.	0.000	0.	
MX	352476.			30.794	-440973.	0.	0.000	0.	
			-110576464.		-199760992.		0.000	0.	
AV		-266138.		30.794	-440974.	-69832.	0.000	0.	
MONTHUT V C	SUMMARY (APR)								
MN	276171.		-455473.	30.794	-440973.	-156707.	0.000	٥.	
MX	344214.			30.794	-440973.	0.	0.000	0.	
		-116568488.	-48130348.		-193146384.	-13774161.	0.000	0.	
AV	308097.		-109887.	30.794	-440973.	-31448.	0.000	0.	
AV	300037.	-200250.	203007.	30.734		32440.	,		
MONTHLY S	SUMMARY (MAY)								
MN	257323.	0.	0.	30.794	٥.	0.	0.000	٥.	
MOX	331286.	0.	٥.		٥.	0.	0.000	0.	
SM	127263344.	٥.	٥.	13395.565	0.	٥.	0.000	0.	
VA	292559.	٥.	0.	30.794	0.	0.	0.000	0.	
MONTHLY S	SUMMARY (JUN)								
MIN	256635.	0.	٥.	30.794	0.	٥.	0.000	0.	
MX	307837.	٥.	0.	30.794	0.	0.	0.000	0.	
SM	124348200.	0.	٥.	13487.948	0.	0.	0.000	0.	
AV	283900.	0.	0.	30.794	٥.	0.	0.000	0.	
MONTHLY S	SUMMARY (JUL)								
MN	261269.	0.	0.	30.794	0.	0.	0.000	0.	
MIX	311705.	0.	0.	30.794	0.	0.	0.000	0.	
SM	123965416.	0.	٥.	13395.565	0.	0.	0.000	0.	
AV	284978.	0.	0.	30.794	٥.	0.	0.000	0.	

ENTECH ENGINEBRING EZDOE - ELITE SOPTWARE DEVELOPMENT INC DOE-2.1D 12/28/1995 15:28:25 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY
SH-1 - HOURLY-REPORT PAGE 2- 2

H-1		RLY-REPORT				PAGE 2-		
	AHU-2	AHU-2	AHU-3	AHU-3	AHU-3	UH-1	UH-1	UH-1
	COOLING CAPACITY BTU/HR	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY BLECTRIC KW	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY ELECTRIC KW	HEATING CAPACITY BTU/HR
	(70)	(78)	(5)	(49)	(78)	( 5)	(49)	(78)
MONTHLY	SUMMARY (AUG)							
MIN	261648.	0.	0.	30.794	0.	0.	0.000	٥.
MIX	308320.	0.	0.	30.794	0.	0.	0.000	٥.
SM	129299568.	0.	0.	13949.865	0.	0.	0.000	٥.
AV	285430.	0.	0.	30.794	0.	0.	0.000	0.
MONTHLY	SUMMARY (SEP)							
MN	262542.	0.	٥.	30.794	0.	0.	0.000	0.
MX	315631.	0.	0.	30.794	0.	0.	0.000	0.
SM	121221072.	0.	0.	13026.032	0.	0.	0.000	0.
AV	286575.	0.	0.	30.794	0.	0.	0.000	0.
MONTHLY	SUMMARY (OCT)							
MN	268079.	-266138.	-341470.	30.794	-440973.	-115780.	0.000	0.
MX	337705.	0.	0.	30.794	0.	0.	0.000	٥.
SM	129315336.	-61477900.	-17868372.	13395.565	-101864840.	-5735789.	0.000	0.
AV	297277.	-141329.	-41077.	30.794	-234172.	-13186.	0.000	0.
MONTHLY	SUMMARY (NOV)							
MIN	288243.	-266138.	-449455.	30.794	-440973.	-150705.	0.000	0.
MX	344214.	-266138.	0.	30.794		0.	0.000	0.
SM	129540496.		-75299616.				0.000	0.
AV	317501.	-266138.	-184558.	30.794	-440973.	-48269.	0.000	0.
MONTHLY	SUMMARY (DEC)							
MN		-266138.	-477993.	30.794		-207460.	0.000	0.
MX	365989.		-35168.	30.794		-13357.	0.000	٥.
SM	144540800.			13487.948			0.000	0.
VA	330002.	-266138.	-334068.	30.794	-440974.	-87843.	0.000	0.
YEARLY	SUMMARY							
MN	256635.	-266138.	-477993.	30.794			0.000	0.
MX	381620.	0.	٥.	30.794	0.		0.000	٥.
SM	1590273408.	-748114176.	-696948800.		-1239576320.		0.000	0.
AV	305881.	-143896.	-134054.	30.794	-238426.	-37303.	0.000	0.

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/28/1995 15:28:25 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY
REPORT- PV-A EQUIPMENT SIZES

WEATHER FILE- BALTIMODE MO REPORT- PV-A EQUIPMENT SIZES SUITABLE BALTIMORE, MD

NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER SQUIPMENT SIZE INSTO SIZE INSTO SIZE INSTO SIZE INSTO SIZE INSTO (MBTU/H) AVAIL (MBTU/H) AVA

HW-BOILER

3.900 1 1

READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY
REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY WRATHER FILE- BALTIMORE, MD

													•
					s	ITE	BNERG	Y					* SOURCE
	2	3	4	5	6	7	8	9	10	11	12	13	• 14
MONTH	TOTAL HEAT LOAD	TOTAL COOLING LOAD	TOTAL ELECTR LOAD	RCVRED ENERGY	WASTED RCVRABL ENERGY	FUEL INPUT COOLING	ELEC INPUT COOLING	FUEL INPUT HEATING	ELEC INPUT HEATING	PUBL INPUT BLBCT	TOTAL FUEL INPUT	TOTAL SITE ENERGY	* TOTAL * SOURCE * ENERGY
JAN	529.4	0.0	443.5 129.9B	0.0	0.0	0.0	0.0 0.0E	839.1	47.4 13.9B	0.0	839.1	1282.6	* 2171.0
PEB	457.4	0.0	391.1 114.58	0.0	0.0	0.0	0.0 0.0B	722.5	40.8 11.98	0.0	722.5	1113.6	* 1897.0
MAR	291.9	0.0	418.9 122.78	0.0	0.0	0.0	0.0 0.0E	470.6	30.4 8.9E	0.0	470.6	889.5	* 1728.5 *
APR	111.5	0.0	381.9 111.8B	0.0	0.0	0.0	0.0 0.0E	181.3	15.4 4.5B	0.0	181.3	563.2	* 1328.1 *
MAY	0.0	0.0	417.8 122.48	0.0	0.0	0.0	0.0 0.0B	0.0	0.0 0.0B	0.0	0.0	417.8	• 1254.5 •
JUN	0.0	- 0.0	476.9 139.7E	0.0	0.0	0.0	0.0E	0.0	0.0E	0.0	0.0	476.9	• 1432.1 •
JUL	0.0	0.0	504.6 147.8B	0.0	0.0	0.0	0.0E	0.0	0.0	0.0	0.0	504.6	* 1515.2 *
AUG	0.0	0.0	510.1 149.4B	0.0	0.0	0.0	0.0 0.0%	0.0	0.0 0.08	0.0	0.0	510.1	• 1531.9 •
SEP	0.0	0.0	439.3 128.6E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0B	0.0	0.0	439.3	* 1319.1 *
OCT	54.8	0.0	408.7 119.78	0.0	0.0	0.0	0.0 0.08	89.5	7.9 2.38	0.0	89.5	498.2	* 1317.0
NOV	209.9	0.0	376.1 110.28	0.0	0.0	0.0	0.0E	341.3	23.9 7.0B	0.0	341.3	717.4	* 1470.8 *
DEC	462.0	0.0	431.6 126.4B	0.0	0.0	0.0	0.0 0.0B	742.5	44.1 12.98	0.0	742.5	1174.2	2038.7
	******		*****	*****		******			*****			******	, ,
	2116.9	0.0	5200.5 1523.18	0.0	0.0	0.0	0.0E	3386.9	209.8 61.5E	0.0	3386.9	8587.4	19004.0

NOTE-- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES POLLOWED BY B ARE IN MWH (THOUSANDS OF KWH) ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/28/1995 15:28:25 FDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY
REPORT- PS-B MONTHLY PEAK AND TOTAL ENERGY USE MEATHER FILE- BALTIMORE, MD

МО	UTILITY-	SLECTRICITY	NATURAL-GAS
	TOTAL (MBTU)	443.543	839,087
JAN	PEAK (KBTU)	873.069	2788.605
	DY/HR	17/10	31/6
	TOTAL (MBTU)	391.116	722.484
FEB	PEAK (KBTU)	873.910	2977.863
	DY/HR	12/13	12/ 6
	TOTAL (MBTU)	418.861	470.636
MAR	PRAK (KBTU)	873.141	2412.521
	DY/HR	4/10	5/ 6
	,	4/10	3/ 6
	TOTAL (MBTU)	381.887	181.343
APR	PEAK (KBTU)	872.724	2011.890
	DY/HR	8/11	9/6
	TOTAL (MBTU)		
MAY	PEAK (KBTU)	417.756	0.000
MAI	DY/HR	1094.493	0.000
	DI/AK	21/17	31/ 1
	TOTAL (MBTU)	476.891	0.000
JUN	PEAK (KBTU)	1318.089	0.000
	DY/HR	10/16	30/ 1
٠			
	TOTAL (MBTU)	504.562	0.000
JUL	PEAK (KBTU)	1340.238	0.000
	DY/HR	25/14	31/ 1
	TOTAL (MBTU)	510.116	0.000
AUG	PEAK (KBTU)	1325.129	0.000
	DY/HR	18/17	31/ 1
	TOTAL (MBTU)	439.261	0.000
SBP	PEAK (KBTU)	1252.603	0.000
	DY/HR	2/14	30/ 1
	TOTAL (MBTU)	408.750	89.499
OCT	PEAK (KBTU)	1043.513	1615.685
	DY/HR	13/16	16/ 6
	TOTAL (MBTU)	376.112	341.316
NOV	PEAK (KBTU)	872.686	2265.796
	DY/HR	25/ 7	25/6
	,	~~, '	23, 9
	TOTAL (MBTU)	431.620	742.550
DEC	PEAK (KBTU)	873.055	2470.307
	DY/HR	6/12	21/ 6
	01FF 1FF1 -		
	ONE YEAR	5200.476	3386.915
	USB/PEAK	1340.238	2977.863

ENTECH ENGINEERING READING, PA 19603
REPORT- PS-D PLANT LOADS SATISFIED

EZDOE - ELITE SOFTWARE DEVELOPMENT INC BZDOB - BLITE SOFT.... FT. GEORGE G. MEADE

NC DOE-2.1D 12/28/1995 15:28:25 PDL RUN 1 BUILDING 2786 - COMMISSARY

TOTAL LOAD ON PLANT

REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

HEATING LOADS MBTU SUPPLIED PCT OF TOTAL LOAD HW-BOILER 2116.9 100.0 \*\*\*\*\*\*\* ------LOAD SATISFIED 2116.9 100.0 TOTAL LOAD ON PLANT 2116.9 ELECTRICAL LOADS MBTU SUPPLIED PCT OF TOTAL LOAD BLECTRICITY 5200.5 100.0 LOAD SATISFIED 5200.5 100.0

5200.4

SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
HEATING LOADS BLECTRICAL LOADS	2116.9 5200.4	2116.9 5200.5	0.000	0.000	0

SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
HEATING LOADS BLECTRICAL LOADS	2116.9 5200.4	2116.9 5200.5	0.000	0.000	0

ENTECE ENGINEERING READOR - ELITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY
REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER FILE- BALTIMORE, MD

вопірмвит	AVG OPER RATIO	MAX LOAD (MBTU)	MON DAY HR	SIZE OPER (MBTU) HRS				
HW-BOILER	0.115	2.162	2 12 6	3.900 4728				

RETECT ENGINEERING BZDOB - BLITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/28/1995 15:28:25 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY REPORT- PS-I EQUIPMENT LIFE CYCLE COSTS WEATHER FILE- BALTIMORE, MD

B	Q	σ	I	P	M	B	N	T	T	0	T	A	L	s

HW-BOILER				97.3		
	NOMINAL	SIZE	(MBTU)			3.900
	NUMBER I	NSTALI	ED			1
	FIRST	COST	(K\$)		88.3	88.3
	ANNUAL	COST	(K\$)		1.1	1.1
	CYCLICAL	COST	(K\$)		7.9	7.9
	TOT	AL	- (K\$)			97.3
RQUIP	MENT TOT	AL.		97.3		

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY
REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE BUILDING 2786 - WEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE MBTU -	BLECTRICITY	NATURAL-GAS
CATEGORY OF USE		
SPACE HEAT	172.16	3386.89
SPACE COOL	562.63	0.00
HVAC AUX	1142.59	0.00
DOM HOT WTR	0.00	0.00
AUX SOLAR	0.00	0.00
LIGHTS	2481.21	0.00
VERT TRANS	0.00	0.00
MISC EQUIP	841.96	0.00
TOTAL	5200.55	3386.89

TOTAL SITE ENERGY 8587.39 MBTU 72.2 KBTU/SQFT-YR GROSS-AREA 72.2 KBTU/SQFT-YR NET-AREA TOTAL SOURCE ENERGY 19003.96 MBTU 159.9 KBTU/SQFT-YR GROSS-AREA 159.9 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 0.0
PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.0

NOTE ELECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

HOURLY DATA FILE 2FROM PROG 3

REA	DING, PA	19603	FT. GEORGE G. MEA	ADE BUILDING 2786 - COMMISSARY
PH-1		LY-REPORT		PAGE 1-
MDDHH	HW-BOILE	HW-BOILE	HW-BOILE	
	R	R	R.	
		BLECTRIC	FUEL	
		USB	USE	
	BTU/HR	BTU/HR	BTU/HR	
	( 1)	(3)	(4)	
MONTHLY	SUMMARY (JAN)			
MN	46237.	4069.	75558.	
MX	1996311.	85800.	2788605.	
SM	529419264.	41504788.	839087488.	
AV	711585.	55786.	1127806.	
MONTHLY	SUMMARY (FEB)			
MN	39445.	3471.		
MX	2162302.	85800.	2977863.	
SM	457433216.	35402044.	722483840.	
AV	680704.	52682.	1075125.	
MONTHLY	SUMMARY (MAR)			
MN	14311.	1259.	23386.	
MX	1670047.	85800.	2412521.	
SM	291889792.	24436264.	470636640.	
AV	392325.	32844.	632576.	
MONTHLY	SUMMARY (APR)			
MN	14311.	1259.	23386.	
MX	1327542.	85800.	2011890.	
SM	111491880.	9642229.	181342624.	
AV	154850.	13392.	251865.	
MONTHLY	Y SUMMARY (OCT)			
MEN	14311.	1259.	23386.	
MX	993730.	85800.	1615685.	
SM		4818414.	89499232.	
AV	142639.	12548.	233071.	
	Y SUMMARY (NOV)			
MN	14311.	1259.	23386.	
MX		85800.	2265796.	
SM		18145312.	341315744.	
AV	291479.	25202.	474050.	
	Y SUMMARY (DEC)	••••	2000	
MN	24418.	2149. 85800.	39902.	
MX	1719874.		2470307.	
SM	462007968.	38212404.	742550464.	
AV	620978.	51361.	998052.	•

EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/28/1995 15:28:25 PDL RUN 1

ENTECH ENGINEERING

PH-1		19603 LY-REPORT					PAGE
	HW-BOILE	HW-BOILE	HW-BOILE	 	 		 
	R R	R	R				
	LOAD	BLECTRIC	PUEL				
	IOAD .	USE	USB				
	BTU/HR	BTU/HR	BTU/HR				
	BIO/III	D10/111	,				
	( 1)	(3)	( 4)			-	
YEARLY	SUMMARY						
MN	14311.	1259.	23386.				
MX	2162302.	85800.	2977863.				
SM	2116880256.	172161456.	3386916096.				
AV	447733.	36413.	716353.				
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BALLDING 2786 W/VENT, NIGHT SETMACK & SCOND.

FILE: FTM \$786N

real SH-1	ENTECH ENGINE DING, PA = HOUR	ERING 19603 LLY-REPORT			DEVELOPMENT INC		1D 12/28/1995 36 - COMMISSARY		SDL RUN :
MMDDHH	AHU-1	AHU-1	AHU-1	AHU-1	AHU-1	AHU-2	AHU-2	AHU-2	
	TOT HTG COIL PWR BTU/HR	COOLING BLECTRIC KW	COOLING CAPACITY BTU/HR	HEATING CAPACITY BTU/HR	SUPPLY ELECTRIC KW	TOT HTG COIL PWR BTU/HR	COOLING BLECTRIC KW	SUPPLY ELECTRIC KW	
	(5)	(47)	(70)	(78)	(49)	(5)	(47)	(49)	
MONTHLY	SUMMARY (JAN)								
MN	-1130374.	0.000	1409303.	-1251263.	19.612	-243145.	0.000	4.171	
MX	0.	0.000	1007360	*****		0.			
SM	-156972976.	0.000	719373120.	-563068544.	8825.219	-25980178.	0.000	1877.084	
AV	-348829.	0.000	1598607.	-1251263. -563068544. -1251263.	19.612	-57734.		4.171	
MONTHLY	SUMMARY (FEB)								
MN	-1146175.	0.000	1381671.	-1251263.	19.612	-233862.	0.000	4.171	
MX	0.	0.000	1807260.	-1251263.	19.612	0.		4.171	
SM	-123216448.	0.000 0.000		-491746560.			0.000	1639.320	
AV	-313528.			-1251264.		-\$1753.	0.000	4.171	
MONTHLY	SUMMARY (MAR)								
MIN	-874086.	0.000	1294808.	-1251263.	19.612	-162695.	0.000	4.171	
MX	0.	0.000	1669242.	-1251263. -1251263.	19.612	0.	0.000	4.171	
	-56786452.		681274048	-566822400.		-7696564.	0.000		
ΑV	-125356.	0.000		-1251264.		-16990.	0.000	4.171	
MONTHLY	SUMMARY (APR)								
MN	-622463.	0.000	1307878.	-1251263.	19.612	-105446	0.000	4.171	
MX	0.			-1251263.		0.		4.171	
SM	-13077685.			-548053376.		-1159935.		1827.028	
ΑV	-29858.			-1251263.		-2648.	0.000	4.171	
MONTHLY	SUMMARY (MAY)								
MIN	0.	0.000	1218618.	0.	19.612	0.	0.000	4.171	
MX	0.		1568888.			0	16.685 2692.290	4.171	
SM		11116.743				0.	2692 290	1814.515	
λV	0.	25.556	1386628.			0.	6.189	4.171	
MONTHLY	SUMMARY (JUN)								
MN	0.	0.000	1212441.	0.	19.612	0.	0.000	4.171	
MX	٥.	130.339	1472445.	0. 0.	19.612	0.	27.851	4.171	
SM	0.	25621.713	590364224.		0500 000	0. 0.	5918.137		
AV	0.	58.497		0.		0.	13.512	4.171	
MONTHLY	SUMMARY (JUL)								
MN	0.	0.000	1237306.	0.	19.612 19.612	0.	0.000	4.171	
MX	0.	135.709	1482159.	0.	19.612	0.	28.969	4.171	
SM	0.	21025 027	E00036013	•	0000	0.	28.969 7266.234 16.704	1814.515	
AV	0.	73.184	2252055	0.	19.612			4.171	

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/28/1995 15:37:35 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY

SH-1 = HOURLY-REPORT PAGE 2- 1

			111 02011			BOIMDING 27	o - COMMISSAR	•	
H-1	= HOU	RLY-REPORT						P	AGE 2
	AHU-1	AHU-1	AHU-1	AHU-1	AHU-1	AHU-2	AHU-2	AHU-2	
	TOT HTG	COOLING	COOLING	HEATING	SUPPLY	TOT HTG	COOLING	SUPPLY	
	COIL PWR	BLECTRIC	CAPACITY	CAPACITY	ELECTRIC	COIL PWR	BLECTRIC	ELECTRIC	
	BTU/HR	KW	BTU/HR	BTU/HR	KW	BTU/HR	KM	KW	
	510/ IMC	201	DIO/IEC	D10/11k	K#	BIO/ER	Y.W	KW	
	(5)	(47)	(70)	(78)	(49)	( 5)	(47)	(49)	
ONTHLY	SUMMARY (AUG)								
MN	0.	0.000	1237030.	0.	19.612	0.	0.000	4.171	
MX	0.	132.263	1472355.	0.	19.612	n	27 989	4.171	
SM	0.	30469.449			8884.054	0.	7003.398	1889.598	
AV	0.		1355916.			0.		4.171	
ONTHLY	SUMMARY (SEP)								
MN	0.	0.000	1242917.	0.	19.612	0.	0.000	4.171	
MX	٥.		1494753.	0.	19.612		25.428	4.171	
SM	0.	18696.824					4390.317	1764.459	
AV	0.		1359095.		19.612	0.	10.379	4.171	
ONTHLY	SUMMARY (OCT)								
MN	-374005.	0.000	1267975.	-1251263.	19.612	-66143	0.000	4.171	
MX	0.		1599287	n	19 612	0	12 761	4.171	
	-9469885.	6496.888	612710656	-289041760.	8531 045	_1133358	1550.609		
AV	-21770.		1408530	-664464.	19.612	-2605.	3.565	4.171	
		211122		*******	13.012	-2005.	3.363	4-1/1	
	SUMMARY (NOV)								
MN	-779236.	0.000		-1251263.		-146468.	0.000	4.171	
MX	0.			-1251263.		0.	0.000	4.171	
SM	-36340496.	0.000		-510515520.		-3928114.	0.000	1701.890	
AV	-89070.	0.000	1502428.	-1251264.	19.612	-9628.	0.000	4.171	
ONTHLY	SUMMARY (DEC)								
MN	-945868.	0.000		-1251263.		-181477.	0.000	4.171	
MX	0.		1733234.	-1251263.	19.612	0.	0.000	4.171	
	-122532336.	0.000	684460864.	-548053376.	8589.880	-18260660.	0.000	1827.029	
AV	-279754.	0.000		-1251263.	19.612	-41691.	0.000	4.171	
EARLY	SUMMARY								
MN	-1146175.	0.000	1212441.	-1251263.	19.612	-243145.	0.000	4.171	
MX	0.	135.709	1807260.	٥.	19.612	-243145. 0.	28.969	4.171	
SM	-518396352.			-3517301248.	101960.695	-78497552.		21686.580	
AV	-99711.			-676534.		-15099.	5.544	4.171	

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC READING, PA 19603 FT. GEORGE G. MEADE

DOB-2.1D 12/28/1995 BUILDING 2786 - COMMISSARY

15:37:35 SDL RUN 1

= HOURLY-REPORT SH-1 PAGE 1- 2 AHU-2 AHU-3 AHU-3 AHU-3 UH-1 UH-1 UH-1 HEATING TOT HTG COOLING STEPPTLY HEATING TOT HTG SUPPLY HRATING CAPACITY CAPACITY COIL PWR ELECTRIC CAPACITY COIL PWR KLECTRIC CAPACITY BTU/HR BTU/HR BTU/HR KW BTU/HR BTU/HR KW BTU/HR ---- (70) ---- (78) ----(5) ---- (49) ---- (78) ----(5) ---- (49) MONTHLY SUMMARY (JAN) MN 297588. -266138 -460312 30.794 -440973. -209743. 0.000 0. MX 381620. -266138. -65526. 30.794 -440973. -21683. 0.000 ٥. -162767776. SM 151907424. -119762144. 13857.481 -198438064. -43700012. 0.000 ٥. ΑV 337572. -266138. -361706. -440973. -97111. 0.000 0. MONTHLY SUMMARY (FEB) -266138. 291753. -476377. MN 30.794 -440973. -346072. 0.000 ٥. MX 381620. -266138. -29109. 30.794 -440973. -12651. 0.000 ٥. SM 130040784. -104592272. -135987664. 12102.201 -173302560. 0.000 ٥. 330893. -266138. -346025. AV 30.794 -440973. -104163. 0.000 MONTHLY SUMMARY (MAR) MN 273411. -266138. -468503. 30.794 -440973. -221216. 0.000 ٥. MX -266138. 352476. 30.794 ٥. -440973. 0. 0.000 143883952. -120560560. -110577928. 13949.865 -31636336. -199760992. 0.000 n ΑV 317625. -266138. -244101. 30.794 -440974. -69837. 0.000 ٥. MONTHLY SUMMARY (APR) MN 276171. -266138. -455473. 30.794 -440973. -156709. 0.000 0. -266138. 30.794 13487.948 MX 344214. 0. -440973. ٥. 0.000 0. SM 134940016. -116568488. -48136520. -13775235. -193146384. 0.000 ٥. ΑV 308082. -266138. -109901. 30.794 -440973. -31450. 0.000 Ο. MONTHLY SUMMARY (MAY) MN 257323. ٥. Ο. 30.794 ٥. ٥. 0.000 ο. MX 331286. ٥. ٥. 30.794 ٥. 0.000 ٥. 127251032. 13395.565 SM ٥. 0. ٥. ٥. 0.000 ΑV 292531. 0. ٥. ٥. 0.000 ٥. MONTHLY SUMMARY (JUN) 256634. ٥. 30.794 ٥. ٥. 0.000 ٥. MX 307837. Ο. ٥. 30.794 0.000 ο. SM 124346952. ٥. ٥. 13487.948 n 0.000 AV 283897. ٥. 30.794 0. ٥. 0.000 Ο. MONTHLY SUMMARY (JUL) 30.794 ٥. ٥. 0.000 0 MX 311705. 0. ٥. 30.794 ٥. 0.000 0. SM 123957848. 0. ٥. 13395.565 ٥. ٥. 0.000 ΑV 284961. 0. 30.794 ο. 0.000

ENTECH ENGINEERING EZDOE - BLITE SOFTY SE DEVELOPMENT INC DOE-2.1D 12/28/1995 15:37:35 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY

PRA	DING, PA	19603	FT. GEORGI	C MEADE	DB T BBOE FILLATE IN		6 - COMMISSARY	
	= HOU			3 G. P.M.D.		BUILDING 276	oo - COMMISSARI	PAGE 2- 2
	- 200				<b></b>			FAGE 2- 2
	AHU-2	AHU-2	AHU-3	AHU-3	AHU-3	UH-1	UH-1	UH-1
	COOLING CAPACITY BTU/HR	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY ELECTRIC KW	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY BLECTRIC KW	HEATING CAPACITY BTU/HR
	(70)	(78)	(5)	(49)	(78)	(5)	(49)	÷~ (78)
MONTHLY	SUMMARY (AUG)							
MN	261648	0.	0.	30.794	0.	0 -	0.000	٥
MX	308320.	٥.	0.	30.794	0.	0.	0.000	0
SM	129292520	0.	0	13949 865	0.	0.	0.000	0.
NV.	295414	0.	0. 0. 0.	30 794	0.	0.	0.000	0.
Α,	203424.	٠.	٠.	30.754	٠.	٠.	0.000	0.
MONTHLY	SUMMARY (SEP)							
MIN	262542.	0.	0.	30.794	0.	0.	0.000	0.
MX	315631.	0.	0.	30.794	٥.	٥.	0.000	Ο.
SM	121217728.	0	0.	13026.032	٥.	0.	0.000	0.
AV	286567.	0.	0. 0. 0.	30.794	0.	0.	0.000	0.
MONTHI.Y	SUMMARY (OCT)							
			-341475.	30 794	-440973	-115902	0.000	0.
MY	337705	100130.	0	30.794	-4405/5.	-112303.	0.000	0.
CM	120202072	-61477900	0. -17868968.	12295 565	-101064940	5736000	0.000	0.
24	297727	-141329	-41078.	30 794	-234172	-3/30002.	0.000	0.
Av	23/22/.	-141323.	-410/6.	30.754	-2341/2.	-13100.	0.000	0.
MONTHLY	SUMMARY (NOV)							
MN	288242.	-266138.	-449474.	30.794	-440973.	-150800.	0.000	0.
MX	344214.	-266138.	0.	30.794	-440973.	٥.	0.000	0.
SM	129525568.	-108584344.	-75306240.	12564.116	-179917168.	-19695312.	0.000	Ο.
AV	317465.	-266138.	-449474. 0. -75306240. -184574.	30.794	-440973.	-48273.	0.000	0.
MONTHLY	SUMMARY (DEC)							
MN	291753.	-266138.	-477988. -35174. -146323520.	30.794	-440973	-207462	0.000	. 0
MX	365989.	-266138.	-35174	30.794	-440973	-13362	0.000	0
SM	144540640.	-116568496.	-146323520.	13487 948	-193146400	-38478232	0.000	0.
AV	330001.	-266138.	-334072.	30.794	-440974.	-87850.	0.000	0.
YEARLY	SUMMARY							
MN	256634.	-266138.	-477988.	30.794	-440973.	-346072.	0.000	0.
MX	381620.	0.	0. -696968640.	30.794	0.	0.	0.000	0_
SM	1590198272.	-748114176.	-696968640.	160100.094	-1239576320.	-193958144.	0.000	ο.
AV	305866.	-143896.	-134058.	30.794	-238426.	-37307.	0.000	0.

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 FT. GEORGE G. MEADE
REPORT- PV-A EQUIPMENT SIZES

DOR-2.1D 12/28/1995 15:37:35 PDL RUN 1 BUILDING 2786 - COMMISSARY WEATHER FILE- BALTIMORE, MD

NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER EQUIPMENT SIZE INSTO SIZE INSTO SIZE INSTO SIZE INSTO SIZE INSTO (MBTU/H) AVAIL (MBTU/H) AVA

HW-BOILER

3.900 1 1

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/28/1995 15:37:35 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY WEATHER FILE BALTIMORE, MD

	SITE BNERGY												SOURCE
	2	3	4	5	6	7	8	9	10	11	12	13	14
MONTH	TOTAL HEAT LOAD	TOTAL COOLING LOAD	TOTAL BLECTR LOAD	RCVRED ENERGY	WASTED RCVRABL ENERGY	FUBL INPUT COOLING	ELEC INPUT COOLING	FUEL INPUT HEATING	ELEC INPUT HEATING	FUEL INPUT ELECT	TOTAL FURL INPUT	TOTAL SITE ENERGY	0001101
JAN	529.3	0.0	443.6 129.9B	0.0	0.0	0.0	0.0 0.0E	839.0	47.4 13.9B	0.0	839.0	1282.6	2171.0
FEB	457.3	0.0	391.1 114.68	0.0	0.0	0.0	0.0E	722.4	40.8 11.98	0.0	722.4	,	1896.9
MAR	291.8	0.0	418.9 122.7E	0.0	0.0	0.0	0.0 0.0B	470.5	30.4 8.9B	0.0	470.S	889.4	1728.4
APR	111.6	0.0	381.9 111.8E	0.0	0.0	0.0	0.0 0.0E	181.5	15.4 4.5E	0.0	181.5	563.4	1328.3
MAY	0.0	0.0	415.4 121.7B	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	0.0	415.4	1247.5
JUN	0.0	0.0	476.5 139.6B	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	0.0	476.5	1431.1
JUL	0.0	0.0	504.4 147.7E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0B	0.0	0.0	504.4	1514.8
AUG	0.0	0.0	509.9 149.3E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	0.0	509.9	1531.3
SEP	0.0	0.0	438.2 128.3E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	0.0	438.2	1315.9
oct	54.7	0.0	405.1 118.7B	0.0	0.0	0.0	0.0 0.0E	89.4	7.9 2.3E	0.0	89.4	494.5	1306.1
NOV	209.8	0.0	376.1 110.28	0.0	0.0	0.0	0.0E	341.3	23.9 7.0E	0.0	341.3	717.4	1470.7
DEC	461.9	0.0	431.6 126.4B	0.0	0.0	0.0	0.0 0.0E	742.5	44.2 12.9B	0.0	742.5	1174.1	2038.7
	******	2228472	*****		******		******		******		*****	*******	*******
	2116.4	0.0	5192.8 1520.9B	0.0	0.0	0.0	0.0 0.0E	3386.6	209.9 61.5E	0.0	3386.6		18980.8

NOTE-- ALL ENTRIES ARE IN MBTU EXCEPT
ENTRIES FOLLOWED BY B ARE IN MWH (THOUSANDS OF KWH)

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/28/1995 15:37:35 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY REPORT- PS-B MONTHLY PEAK AND TOTAL ENERGY USE WEATHER FILE- BALTIMORE, MD

MO UTILITY- ELECTRICITY NATURAL-GAS  TOTAL (METU) 443.555 839.034  JAN PEAK (KETU) 873.069 2788.600 DY/HR 17/10 31/6  TOTAL (METU) 391.126 722.387  PEB PEAK (KETU) 873.911 2977.913 DY/HR 12/13 12/6  TOTAL (METU) 418.862 470.540  MAR PEAK (KETU) 873.141 2404.731 DY/HR 4/10 5/6	
JAN PEAK (KBTU) 873.069 2788.600 DY/HR 17/10 31/6  TOTAL (MBTU) 391.126 722.387 PEB PEAK (KBTU) 873.911 2977.913 DY/HR 12/13 12/6  TOTAL (MBTU) 418.862 470.540 MAR PEAK (KETU) 873.141 2404.731	
DY/HR 17/10 31/6  TOTAL(MBTU) 391.126 722.387  PEB PEAK(KBTU) 873.911 2977.913 DY/HR 12/13 12/6  TOTAL(MBTU) 418.862 470.540 MAR PEAK(KBTU) 873.141 2404.731	
TOTAL (MBTU) 391.126 722.387  FEB PEAK (KBTU) 873.911 2977.913 DY/HR 12/13 12/6  TOTAL (MBTU) 418.862 470.540  MAR PEAK (KBTU) 873.141 2404.731	
PEB         PEAK(KETU)         873.911         2977.913           DY/HR         12/13         12/6           TOTAL(MBTU)         418.862         470.540           MAR         PEAK(KETU)         873.141         2404.731	
PEB         PEAK(KETU)         873.911         2977.913           DY/HR         12/13         12/6           TOTAL(MBTU)         418.862         470.540           MAR         PEAK(KETU)         873.141         2404.731	
DY/HR 12/13 12/6  TOTAL(MBTU) 418.862 470.540  MAR PRAK(RBTU) 873.141 2404.731	
MAR PEAK(KETU) 873.141 2404.731	
-,	
TOTAL(MBTU) 381.897 181.506	
APR PERK (KBTU) 872.725 1992.495	
DY/RR 8/11 9/6	
TOTAL (METU) 415.424 0.000	
MAY PEAK(RETU) 1094.493 0.000	
DY/HR 21/17 31/ 1	
TOTAL (MBTU) 476.540 0.000	
JUN PEAK(KBTU) 1318.089 0.000	
DY/HR 10/16 30/ 1	
TOTAL (MBTU) 504.432 0.000	
JUL PEAK(KBTU) 1340.238 0.000	
DY/HR 25/14 31/ 1	
TOTAL(METU) 509.916 0.000	
AUG PEAK(KBTU) 1325.129 0.000	
DY/HR 18/17 31/ 1	
TOTAL (MBTU) 438.203 0.000	
SEP PERK(KETU) 1252.603 0.000	
DY/HR · 2/14 30/1	
TOTAL (MBTU) 405.149 89.396	
OCT PEAK (KBTU) 1043.495 1585.456	
DY/HR 13/16 16/6	
TOTAL (MBTU) 376.104 341.285	
NOV PERK (KBTU) 872.687 2241.357	
NOV PEAK(REIU) 8/2.68/ 2241.35/ DY/HR 25/7 25/6	
PARTY (ARREST) 474 675 740 405	
TOTAL (MBTU) 431.635 742.495 DEC PRAK (KBTU) 873.055 2469.255	
DEC PEAK(KETU) 873.055 2469.255 DY/HR 6/12 21/6	
D1/10A 0/12 21/ 0	
ANT VIND 5102 042 3286 642	
ONE YEAR 5192.842 3386.642	
USE/PEAK 1340.238 2977.913	

ENTECH ENGINEERING EZDOE - BLITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/28/1995 15:37:35 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY

REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE BALTIMORE, MD

HEATING LOADS MBTU SUPPLIED PCT OF TOTAL LOAD HW-BOILER 2116.4 100.0 . ------LOAD SATISFIED TOTAL LOAD ON PLANT 2116.4 100.0 2116.4 ELECTRICAL LOADS MBTU SUPPLIED PCT OF TOTAL LOAD ---------------ELECTRICITY 5192.8 \*\*\*\*\*\*\* LOAD SATISFIED 5192.8 100.0

5192.8

TOTAL LOAD ON PLANT

SUMMARY OF LOADS MET

TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
2116.4	2116.4	0.000	0.000	0
	LOAD (MBTU)	LOAD SATISFIED (MBTU) (MBTU)	LOAD SATISFIED OVERLOAD (MBTU) (MBTU)  2116.4 2116.4 0.000	LOAD SATISFIED OVERLOAD OVERLOAD (MBTU) (MBTU) (MBTU) (MBTU)  2116.4 2116.4 0.000 0.000

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/28/1995 15:37:35 FDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY REPORT- PS-H EQUIPMENT USE STATISTICS REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER FILE- BALTIMORE, MD

MAX MON LOAD DI AVG MAX MON

LOAD DAY SIZE OPER SIZE OPER SIZE OPER SIZE OPER SIZE OPER

(MBTU) HR (MBTU) HRS (MBTU) HRS (MBTU) HRS (MBTU) HRS (MBTU) HRS OPER EQUIPMENT RATIO (MBTU) HW-BOILER 0.115 2.162 2 12 6 3.900 4728

ENTECH ENGINEERING EZDOE - BLITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/28/1995 15:37:35 FDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY REPORT- PS-I EQUIPMENT LIFE CYCLE COSTS WEATHER FILE- BALTIMORE, MD

B Q U I P M B N T T O T A L S

,		
HW-BOILER 97.3		
NOMINAL SIZE (MBTU)		3.900
NUMBER INSTALLED		1
FIRST COST (K\$)	88.3	88.3
ANNUAL COST (K\$)	1.1	1.1
CYCLICAL COST (K\$)	7.9	7.9
(K\$)		97.3
EQUIPMENT TOTAL 97.3		

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/28/1995 15:37:35 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE WEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE METU -	ELECTRICITY	NATURAL-GAS
CATEGORY OF USE		
SPACE HEAT	172.21	3386.62
SPACE COOL	554.96	0.00
HVAC AUX	1142.57	0.00
DOM HOT WTR	0.00	0.00
AUX SOLAR	0.00	0.00
LIGHTS	2481.20	0.00
VERT TRANS	0.00	0.00
MISC EQUIP	841.96	0.00
TOTAL	5192.90	3386.62

TOTAL SITE ENERGY 8579.48 MBTU 72.2 KBTU/SQFT-YR GROSS-AREA 72.2 KBTU/SQFT-YR NET-AREA TOTAL SOURCE ENERGY 18980.76 MBTU 159.7 KBTU/SQFT-YR GROSS-AREA 159.7 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 0.0 PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.0

NOTE ELECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

HOURLY DATA FILE 2FROM PROG 3

ENTECH	ENGINEER:	ING	EZDOE - ELI	TE SOFTWARE DE	VELOPMENT INC	DOE-2.1D	12/28/1995	15:37:35	PDL	RUN	11
READING,	PA	19603	FT. GEORGE	G. MEADE		BUILDING 2786 -	COMMISSARY				
PH-1	- HOURLY	-REPORT						I	PAGE	1-	1
					<del></del>						

	DING, PA	19603	FT. GEORGE G. MEADE	BUILDING 2786 - COMMISSARY	
PH-1	⇒ HOUF	LY-REPORT			PAGE 1-
MDDHH	HW-BOILE	HW-BOILE	HW-BOILE		
	R	R	R		
	LOAD	BLECTRIC	FUEL		
		USE	USB		
	BTU/HR	BTU/HR	BTU/HR		
	( 1)	(3)	( 4)		
		( 3,	( •/		
	SUMMARY (JAN)				
MN	46241.	4069.	75564.		
MX	1996307.	85800.	2788600.		
SM		41516372.	839033536.		
AV	711451.	55802.	1127733.		
MONTHLY	SUMMARY (FEB)				
MN	39450.	3472.	64467.		
MX	2162346.	85800.	2977913.		
SM	457304032.	35412028.	722386432.		
AV	680512.	52696.	1074980.		
MONTHLY	SUMMARY (MAR)				
MIN	14311.	1259.	23386.		
MX	1663338.	85800.	2404731.		
SM	291801888.	24437534.	470540032.		
AV	392207.	32846.	632446.		
MONTHLY	SUMMARY (APR)				
MN	14311.	1259.	23386.		
MX	1311089.	85800.	1992495.		
SM	111586392.	9652111.	181505248.		
AV	154981.	13406.	252091.		
MONTUT.V	SUMMARY (OCT)				
MN	14311.	1259.	23386.		
MX	970209.	85378.	1585456.		
SM	54705524.	4814087.	89396472.		
AV	142462.	12537.	232803.		
MONTHLY	SUMMARY (NOV)				
MN	14311.	1259.	23386.		
MX	1523092.	85800.	2241357.		
SM	209814976.	18150828.	341284800.		
AV	291410.	25209.	474007.		
MONTHLY	SUMMARY (DEC)				
MIN	24424.	2149.	39912.		
MX	1718966.	85800.	2469255.		
SM	461898240.	38226960.	742495360.		
AV	620831.	51380.	997978.		
^,	020031.	22300.	2373701		

		19603 RLY-REPORT	PT. GEORGE G. MEADE BUILDING 2786 - COMMISSARY	,	PAGE	2-
	HW-BOILE	HW-BOILE	HW-BOILB			
	R	R	R			
	LOAD	ELECTRIC	FUEL			
		USB	USE			
	BTU/HR	BTU/HR	BTU/HR			
	( 1)	(3)	( 4)			
YEARLY	SUMMARY					
MN	14311.	1259.	23386.			
MX	2162346.	85800.	2977913.			
SM	2116430336.	172209920.	3386641920.			
AV	447638.	36423.	716295.			
-						

#### FT. MEADE, MARYLAND

Building:

2789

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Brick	0.44
Air Space	1.10
Concrete Block	1.72
Inside Surface	0.68
Total R-Value	4.11
Total U-Value	0.24

Square	feet
--------	------

8,998

Exterior Roof	
Components .	R-Value
Outside Surface	0.17
Built-up Roof	0.33
2" Insulation Rigid	12.00
Metal Deck	0.00
Air Space	1.10
Acoustical Tile	1.89
Inside Surface	0.61
Total R-Value	16.10
Total U-Value	0.06

Calculated Total Area	
No. of Floors	1
Avg. Floor to Floor Height	15
No. of Basement Levels	
Gross Floor Area	9000
Roof Area	9000
Estimated Infiltration (cfm)	1350
Gross Wall Area	4545
Door Area	300
Gross Window Area	260
Other	
Net Wall Area	3985

Window and Door					
	U-Value				
Window Single Pane W/Storm	0.60				
Window Single Pane Wo/Storm	1.00				
Window Double Pane	0.55				
Skylight					
Glass Block					
Other					
Door Type 1	1.00				
Door Type 2					
Door Type 3					
•					

UoAo = (3985\*0.24) + (9000\*0.06) + (300\*1.0) + (260\*0.6) = 2,004

## FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

Page 1 of 1

BUILDING NO. 2789

EQUIPMENT				SYSTEM	SYSTEM NUMBER			
	1	2	3	4	5	9	7	8
Equipment Name	AHU-1	AHU-2	Boiler					
COOLING:				•				
Type of Cooling	-							
Air Side	_							
Location in Building	Bldg Front	Bldg Rear						
Area Sq. Feet	4500	4500					-	
Supply CFM	3800	5100						
Supply Fan HP	2	က						
O.A. CFM or %	20%	20%						
Return CFM								
Return Fan HP								
Chiller Tonnage	20	20						
Tower or Condenser Fan HP								
Condenser Pump HP								
Chilled Water Pump HP								
HEATING:								
Type of Heating			-					
Source			_					
МВТИН			200					
Hot Water Pump HP			1/2					
Condensate Pump HP					1			
ADDITIONAL:								
Aux. HP Cooling					:	1		
Aux. HP Heating								
Operating Schedule Hrs./Week								
Type	Type of Cooling					Type of Heating	0	
(1) Air Cooled DX	(4) Water Cooled Chiller	d Chiller		(1) Boiler Hot Water			(4) Furnace	
(2) Water Cooled DX	(5) Central Plant	t Supplied		(2) Boiler Steam	_			
(3) Air Cooled Chiller	(6) Other			(3) Steam to Ho	(3) Steam to Hot Water Converter			
A	Air Side				Ť	Heating Source	9	
(1) Single Zone	(4) VAV w/ Reheat	eat		(1) Natural Gas			(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	lume Reheat		(2) Central Plant Steam	t Steam		(5) Electric	
(3) VAV	(6) Heating and Ventilating	Ventilating		(3) Central Plant Hot Water	t Hot Water			
G:PROJECTSW130.07\SS\2789\EQUIPMNT.WK4								

G:PROJECTSW130.07\SS\2789\EQUIPMNT.WK4

#### EMCS Annual Energy Savings Summary Report

Base: FTMEADE Building: 2789

Case: 1

Description: POST OFFICE

Fuel Type: Natural gas (methane)

#### Caution

The ESA program makes no attempt to exclude incompatible strategies.

It is the user's responsibility to select all appropriate strategies.

#### Annual Energy Savings Table for Single Zone DX-A/C

Description: AHU-1				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback	34.482	256	0.0	0
Vent/Recirculation	11.344	0	0.0	0
Run Time Recording	0.000	0	0.0	2
Safety Alarm	0.000	0	0.0	2
Subtotals	45.825	256	0.0	4
Heating Value /	1,031	Btu/cf	•	
Totals	44,448	256	0.0	4
	cf /yr	kWh/yr	kW	mh/yr

Annual Energy Savings Table for Single Zone DX-A/C

Description: AHU-2				=====
Strategy	MBtu/yr	kWh/yr	kW	====== mh/yr
Day/Night Setback Vent/Recirculation Run Time Recording Safety Alarm	34.482 11.344 0.000 0.000	256 0 0 0	0.0 0.0 0.0 0.0	0 0 2 2
Subtotals Heating Value /	45.825 1,031	256 Btu/cf	0.0	4
Totals	44,448 cf /yr	256 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Hot Water Boiler

Description: HOT WATER BOILE	R 			
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Hot Water OA Reset Run Time Recording Safety Alarm	37.500 0.000 0.000	0 0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	37.500	0 Btu/cf	0.0	4
Totals	36,372 cf /yr	0 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Air Cooled DX Compressor

Description: CONDENSERS				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop	0.000	589	 0.0	0
Duty Cycling	0.000	1,117	0.0	0
Demand Limiting	0.000	0	0.3	0
Run Time Recording	0.000	0	0.0	2
Safety Alarm	0.000	0	0.0	2
Totals	0.000 MBtu/yr	1,706 kWh/yr	 0.3 kW	4 mh/yr

Annual Energy Savings Table for Lighting Control

Description: LIGHTING				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Lighting Control	0.000	70,720	0.0	0
Totals	0.000 MBtu/yr	70,720 kWh/yr	0.0 kW	0 mh/yr

EMCS Annual Energy Savings for Building 2789

Description	Value	Units
Natural gas (methane) Electrical Energy	125,268 72,938	cf /yr kWh/yr
Electrical Demand Reduction Labor Savings	0.3 16	kW mh/yr
\		

#### FT. MEADE, MARYLAND

Building:

2790

78,343 Square feet

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Brick	0.44
Concrete Block	1.72
1" Rigid Insulation	6.00
Gyp Board	0.56
Inside Surface	0.68
Total R-Value	9.57
Total U-Value	0.10

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Built-up Roof	0.33
Metal Deck	0.00
2" Rigid Insulation	12.00
Air Space	1.11
Acoustical Tile Clg	1.89
Inside Surface	0.61
Total R-Value	16.11
Total U-Value	0.06

Calculated Total Area	
No. of Floors	1
Avg. Floor to Floor Height	20
No. of Basement Levels	
Gross Floor Area	78343
Roof Area	78343
Estimated Infiltration (cfm)	11500
Gross Wall Area	37812
Door Area	
Gross Window Area	1310
Other	
Net Wall Area	36502

Window and Door	
	U-Value
Window Single Pane W/Storm	
Window Single Pane Wo/Storm	
Window Double Pane	0.55
Skylight	
Glass Block	
Other	
Door Type 1	
Door Type 2	
Door Type 3	
•	

## FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

BUILDING NO. 2790

Page 2 of 2

TNEMBERT				SYSTEM NUMBER	MBER			
	1	2	3	4	5	9	7	8
Equipment Name	AC-22-25							
COOLING:								
Type of Cooling	-							
Air Side	_							
Location in Building	X							
Area Sq. Feet	3528		•					
Supply CFM	2250							
Supply Fan HP	က							
O.A. CFM or %	200							
Return CFM								
Return Fan HP								
Chiller Tonnage	က							
Tower or Condenser Fan HP								
Condenser Pump HP								
Chilled Water Pump HP								
HEATING:								
Type of Heating								
Source	1							
МВТОН								
Hot Water Pump HP								
Condensate Pump HP								
ADDITIONAL:								
Aux. HP Cooling								
Aux. HP Heating								
Operating Schedule Hrs. Week								
	Type of Cooling					Type of Heating	b <sub>i</sub>	
(1) Air Cooled DX	(4) Water Cooled Chiller	d Chiller		(1) Boiler Hot Water	e		(4) Furnace	
	(5) Central Plant Supplied	t Supplied		(2) Boiler Steam				
(3) Air Cooled Chiller	(6) Other			(3) Steam to Hot Water Converter	Vater Converte			
	Air Side				Ĭ	<b>Heating Source</b>	Ð	
(1) Single Zone	(4) VAV w/ Reheat	eat		(1) Natural Gas			(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	lume Reheat		(2) Central Plant Steam	team lot Woter		(5) Electric	
Composition of the composition o	(o) reaming and	Vermannig		19/ Ocimai Fiant	lot vvatel			

G:PROJECTSW130.07\SS\2790\EQUPMN12.WK4

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

**BUILDING NO. 2790** 

Page 1 of 2

EQUIPMENT				SYSTEM	SYSTEM NUMBER			
	-	2	8	4	5	9	7	8
Equipment Name	AC-1	AC-2	AC-3	AC-4	AC-5	AC-6-12	AC-13-16,19	AC,17,18,19,20
COOLING:								
Type of Cooling	-	-	-	-	1	1	1	-
Air Side	-	-	-	-	-	1	1	-
Location in Building	Minute Mart	Minute Mart	Food Court	Food Court	Food Court	Food Court	Ϋ́	X
Area Sq. Feet	7500	7500	1520	1520	1520	1520	1260	3528
Supply CFM	7120	8080	4300	10000	5230	6240	2000	3000
Supply Fan HP	7 1/2	5	1 1/2	_	-	1	2	ည
O.A. CFM or %	1580	1500	4300	1800	640	785	150	350
Return CFM								
Return Fan HP								
Chiller Tonnage	16	20	23	24	10	15	5	80
Tower or Condenser Fan HP								
Condenser Pump HP								
Chilled Water Pump HP								
HEATING:								
Type of Heating								
Source	-	-	1	-	-	1	1	-
MBTUH								
Hot Water Pump HP								
Condensate Pump HP			-					
ADDITIONAL:								
Aux. HP Cooling								
Aux. HP Heating								
Operating Schedule Hrs. Week								
						:		
	Type of Cooling				<b>–</b>	<b>Type of Heating</b>	ng	
(1) Air Cooled DX	(4) Water Cooled Chiller	d Chiller		(1) Boiler Hot Water	/ater		(4) Furnace	
(2) Water Cooled DX	(5) Central Plant Supplied	t Supplied		(2) Boiler Steam	_			
(3) Air Cooled Chiller	(6) Other			(3) Steam to Ho	(3) Steam to Hot Water Converter	er		
A	Air Side				I	Heating Source	e e	
(1) Single Zone	(4) VAV w/ Reheat	eat		(1) Natural Gas			(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	lume Reheat		(2) Central Plant Steam	t Steam		(5) Electric	
(3) VAV	(6) Heating and	Ventilating		(3) Central Plant Hot Water	t Hot Water			
G:PROJECTSM130.07/SSV2790/EQUIPMNT.WK4								

G:PROJECTSM130.07\SS\2790\EQUIPMNT.WK4

### UMCS FEASIBILITY STUDY FORT MEADE BUILDING 2790 - POST EXCHANGE DOE ENERGY SAVINGS SUMMARY

	Space Heat	Heat	Space Cool	HVAC Aux	Lights	Misc Equip	TOTAL	'AL	TOTAL	AL
	Electricity Natural Gas	latural Gas	Electricity	Electricity	Electricity	Electricity	Electricity	Electricity Natural Gas	Electricity Natural Gas	Natural Gas
	mmBtu	mmBtu	mmBtu	mmBtu	mmBtu	· mmBtu	mmBtu	mmBtu	Kwh	MCF
Existing		5,113.3	879.7	1,222.6	2,778.5	396.2	5,276.9	5,113.3	1,546,124	4,959.5
New w/Night Setback		3,131.8	775.9	784.3	2,778.5	396.2	4,734.9	3,131.8	1,387,313	3,037.6
Night Setback Savings							542.0	1,981.5	158,810	1,921.9
New w/Night Setback		2,869.3	777.9	781.9	2,778.5	396.2	4,734.5	2,869.3	1,387,181	2,783.1
Vent/Recirc Savings							0.4	262.4	132	254.6
New w/Night Setback & Vent/Recirc & Economizer	· · · · · · · · · · · · · · · · · · ·	1,634.8	734.0	782.0	2,778.5	396.2	4,690.6	1,634.8	1,374,333	1,585.7
Economizer Savings							43.9	1,234.5	12,848	1,197.4

G.PROJECTSW130.07\SS\Z780\DOESUM.WK4

	AC-17 COOLING BLECTRIC KW	AC-17 SUPPLY BLECTRIC KW	AC-17 HEATING	AC-17	AC-17	AC-18			
	ELECTRIC KW	BLECTRIC					AC-18	AC-18	
	(47) -		gas btu/hr	COOLING CAPACITY BTU/HR	HEATING CAPACITY BTU/HR	HEATING GAS BTU/HR	COOLING BLECTRIC KW	SUPPLY BLECTRIC KW	
		(49)	(45)	(70)	(78)	(45)	(47)	(49)	
	SUMMARY (JAN)								
MN	0.000	2.165	1600.	131833.	-182915.	1600.	0.000	2.106	
MX	0.007	2.165	134779.	169898.	-182915.	118337.	0.001	2.106	
SM	0.026	1610.982	33992348.			25816714.	0.001	1567.087	
AV	0.000	2.165	45689.	151336.	-182915.	34700.	0.000	2.106	
MONTHLY	SUMMARY (FEB)								
MIN	0.000	2.165	1600.	130534.	-182915.	1600.	0.000	2.106	
MIX	0.019	2.165	135178.	169898.			0.042	2.106	
SM	0.019	1455.081	28055404.		-122918864.	21674042.	0.104	1415.433	
AV	0.000	2.165	41749.	148707.	-182915.	32253.	0.000	2.106	
MONTHT.Y	SUMMARY (MAR)								
MN	0.000	2.165	1600.	121723.	-182915.	1600.	0.000	2.106	
MX	0.034	2.165	98102.			85132.	0.019	2.106	
SM	0.086	1610.982	15717515.			10822541.	0.013	1567.087	
AV	0.000	2.165	21126.	143204.	-182915.	14546.	0.000	2.106	
MONTSIT.V	SUMMARY (APR)								
MN	0.000	2.165	1600.	123570.	-182915.	1600.	0.000	2,106	
MX	3.418	2.165	81986.	153244.		68570.	4.356	2.106	
SM	45.319	1559.015	5987736.		-131698784.	3766426.	109.633	1516.536	
AV	0.063	2.165	8316.	138583.	-182915.	5231.	0.152	2.106	
MONTHT.Y	SUMMARY (MAY)								
MN	0.000	2.165	1600.	114560.	-182915.	1600.	0.000	2.106	
MX	8.808	2.165	73282.	148199.		63100.	8.801	2.106	
SM	1585.779	1610.982	6662201.		-136088736.	5485239.	1692.692	1567.087	
AV	2.131	2.165	8955.	132150.	-182915.	7373.	2.275	2.106	
MONTHLY	SUMMARY (JUN)								
MIN	0.000	2.165	1600.	115327.	-182915.	1600.	0.000	2,106	
MX	12.800	2.165	26477.	142339.		21886.	12.496	2,106	
SM	3234.184	1559.015	1850723.		-131698784.	1641665.	3251.267	1516.536	
AV	4.492	2.165	2570.	129970.	-182915.	2280.	4.516	2.106	
MONTHLY	SUMMARY (JUL)								
MN	0.000	2.165	1600.	116908.	-182915.	1600.	0.000	2.106	
MX	12.878	2.165	10383.	145769.	-182915.	7441.	12.549	2.106	
SM	4033.439	1610.982	1241136.	97971472.		1209860.	3997.184	1567.087	
AV	5.421	2.165	1668.	131682.	-182915.	1626.	5.373	2.106	

FT. GEORGE G. MEADE BUILDING 2790 - EXISTING 19603 READING, PA - HOURLY-REPORT PAGE 2- 1 SH-1 \_\_\_\_\_\_ AC-17 AC-17 AC-17 AC-18 AC-18 AC-17 AC-17 COOLING SUPPLY HEATING COOLING HEATING HEATING COOLING SUPPLY CAPACITY CAPACITY BLECTRIC RESCURIC BLECTRIC BLBCTRIC GAS GAS BTU/HR BTU/HR BTU/HR BTU/HR KW KW ---- (47) ---- (49) ---- (45) ---- (70) ---- (78) ---- (45) ---- (47) ---- (49) MONTHLY SUMMARY (AUG) 2.165 1600. 117011. -182915. 1600. 0.000 2.106 0.000 MN 13.005 2.165 34751. 143266. -182915. 30870. 12.692 2.106 ΜX 98163288. -136088736. 1567.087 SM 3860.124 1610.982 1697385. 1552077. 3856.527 2281. 131940. -182915. 2086. 5.184 2.106 ΔV 5.188 2.165 MONTHLY SUMMARY (SEP) MN 0.000 2.165 1600. 118532. -182915. 1600. 0.000 2.106 145351. -182915. 34290. 11.675 2.106 2.165 41181. MX 11.878 3231213. 94298336. -131698784. 2686033. 2550.479 1516.536 2496.941 1559.015 SM 2.165 4488. 130970. -182915. 3731. 3.542 2.106 MONTHLY SUMMARY (OCT) 1600. 118097. -182915. 1600. 0.000 2.106 0.000 2.165 MN 7.587 2.165 67549. 150347. -182915. 58895. 7.745 2.106 ΜX 100166456. -136088736. 6216482. 1097.491 1567.087 7928901. SM 989.433 1610.982 10657. 8355. 2.165 1.475 AV 1.330 MONTHLY SUMMARY (NOV) 1600. 129246. -182915. 1600. 0.000 2.106 2.165 MN 0.000 5.506 2.165 80239. 158959. -182915. 71404. 5.896 2.106 MX

-131698784.

-182915.

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-1602335104.

-136088736.

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12344.

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118337.

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1516.536

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18451.184

EZDOE - BLITE SOFTWARE DEVELOPMENT INC

ENTECH ENGINEERING

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13.005

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16331.666

MONTHLY SUMMARY (DBC)

AV

MX

SM

A٧

MN

SM

AV

YEARLY SUMMARY

1359.015

2.165

2.165

2.165

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2.165 18968.020

1610.982

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135178. 146914464. 102756056.

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162939.

148355.

114560.

169898.

138639.

1214478336.

110375760.

DOB-2.1D 1/19/1996

10:13:49 SDL RUN 1

DOE-2.1D 1/19/1996 10:13:49 SDL RUN 1 BUILDING 2790 - EXISTING ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC READING, PA 19603 FT. GEORGE G. MEADE = HOURLY-REPORT SH-1 PAGE 1- 2 MMDDHH AC-18 AC-19 AC-19 AC-19 AC-19 AC-19 HEATING HEATING COOLING SUPPLY COOLING COOLING HEATING HRATING BLECTRIC CAPACITY CAPACITY GAS BLECTRIC CAPACITY CAPACITY GAS BTU/HR BTU/HR KW BTU/HR BTU/HR BTU/HR BTU/HR ---- (70) ---- (78) ---- (45) ---- (47) ---- (49) ---- (70) ---- (78) ---- (45) MONTHLY SUMMARY (JAN) 128440. -177931. MN 1600. 0.000 2.106 128440. -177931. 1600. 118337. 0.001 MX 165524. -177931. 2.106 165524. 135462. -177931. -132380472. 25816714. 0.001 1567.087 SM 109699128. 109699128. -132380472. 33656308. ΑV 147445. -177931. 34700. 0.000 2.106 147445. -177931. 45237. MONTHLY SUMMARY (FEB) -177931. 1600. 0.000 127174. 2.106 -177931. 1600. MN ΜX 165524. -177931. 118222. 0.042 2.106 165524. -177931. SM 97368208. -119569464. 21674042. 0.104 1415.433 97368208. -119569464. 27768428 AV -177931. 32253. 0.000 144893. 2.106 144893. -177931. 41322. MONTHLY SUMMARY (MAR) MN 119187. -177931. 1600. 0.000 2.106 119187. -177931 1600 153607. -177931. 85132. 0.019 MX 2.106 153607. -177931. 98417. -132380472. 103857024. 10822541. 0.043 1567.087 103857024. -132380472. 15375055. ΑV 139593. -177931. 14546. 0.000 2.106 139593. -177931. MONTHLY SUMMARY (APR) 120389. -177931. 1600. 0.000 2.106 120389. -177931. 149299. MX 149299. -177931. 68570. 4.356 2.106 -177931. 82370. 3766426. 1516.536 -128110136. 109.633 97408584. SM 97408584. -128110136. 5875528. AV 135290. 135290. -177931. 8160. MONTHLY SUMMARY (MAY) 111611. -177931. 1600. 0.000 111611. -177931. 1600. ΜX 144384. -177931. 63100. 8.801 2.106 144384. ~177931. 73705. SM 95738856. -132380472. 5485239. 1692.692 1567.087 95738856. -132380472. 6628746. AV 128681. 2.106 128681. -177931. 8910. MONTHLY SUMMARY (JUN) -177931. 112348. 1600. 0.000 2.106 -177931. MN 112348. 1600. -177931. 21886. 12.496 ΜX 138679. 2.106 138679. -177931. 26590. -128110136. SM 91117064. -128110136. 1641665. 3251.267 1516.536 91117064. 1837815. AV 126551. -177931. 2280. 4.516 2.106 126551 -177931 2553 MONTHLY SUMMARY (JUL) MN 113898. -177931. 1600. 0.000 2.106 113898. -177931. 1600. MX -177931. 7441. 12.549 142123. 2.106 142123. -177931. 10035. 1209860. 1239413. 95425800. -132380472. 3997.184 1567.087 95425800. ΑV 128260. -177931. 1626. 5.373 2.106 128260. -177931. 1666.

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/19/1996 10:13:49 SDL RUN 1

RBA	DING, PA	19603	FT. GEORGE	G. MEADE		BUILDING 2	790 - EXISTING	
i-1		JRLY-REPORT						PAGE 2
	AC-18	AC-18	AC-19	AC-19	AC-19	AC-19	AC-19	AC-21
	COOLING	HRATING	HEATING	COOLING ELECTRIC	SUPPLY	COOLING	HEATING	HEATING
	CAPACITY	CAPACITY	GAS	BLECTRIC	BLECTRIC	CAPACITY		GAS
	BTU/HR	BTU/HR	BTU/HR	KW	KW			
	(70)	(78)	(45)	(47)	(49)	(70)	(78)	(45)
ONTHLY	SUMMARY (AUG)	)						
MN	114065.	-177931.	1600.	0.000	2.106	114065.	-177931.	1600.
MX	139586.	-177931.	30870.	12.692	2.106	139586.	-177931.	34875.
SM	95571792.	-132380472.	1552077.	3856.527	1567.087	95571792.	-177931. -177931. -132380472.	1692983.
AV	128457.	-177931.	2086.	5.184	2.106	128457.	-177931.	2276.
ONTHLY	SUMMARY (SEP)	)						
MN	115457.	-177931.	1600.	0.000	2.106	115457.	-177931. -177931.	1600.
MX	141406.	-177931.	34290.	11.675	2.106	141406.	-177931.	40572.
SM	91824552.	-128110136.	2686033.	2550.479	1516.536	91824552.	-128110136.	3108459.
AV	127534.	-177931.	3731.	3.542	2.106	127534.	-128110136. -177931.	4317.
ONTHLY	SUMMARY (OCT)	)						
MIN	115057.	-177931.	1600.	0.000	2.106	115057.	-177931. -177931. -132380472.	1600.
MX	146476.	-177931.	58895.	7.745	2.106	146476.	-177931.	66807.
SM	97580248.	-132380472.	6216482.	1097.491	1567.087	97580248.	-132380472.	7654722.
AV	131156.	-177931.	8355.	1.475	2.106	131156.	-177931.	10289.
ONTHLY	SUMMARY (NOV)	)						
MIN	125919.	-177931.	1600.	0.000	2.106	125919.	-177931.	1600.
MX	155621.	-177931.	71404.	5.896	2.106	155621.	-177931.	80530.
SM	100171064.	-128110136.	8887927.	110.693	1516.536	100171064.	-128110136.	12571742.
ΑV	139126.	-177931.	12344.	0.154	2.106	139126.	-177931. -177931. -128110136. -177931.	17461.
	SUMMARY (DEC)							
MN	129715.	-177931. -177931.	1600. 95070.	0.000	2.106	129715.	-177931. -177931.	1600.
MX	158744.	-177931.	95070.	0.032	2.106	158744.	-177931.	108988.
SM	107558976.	-132380472.	20528826.	0.076	1567.087	107558976.	-132380472.	27294386.
AV	144569.	-177931.	27593.	0.000	2.106	144569.	-177931.	36686.
TEARLY	SUMMARY							
MN	111611.	-177931.	1600.	0.000	2.106	111611.	-177931.	1600.
MX	165524.	-177931.	118337.	12.692	2.106	165524.	-177931. -1558673152.	135676.
	1183321344.	-1558673152.	110287824.	16666.191	18451.184			
AV	135082.	-177931.	12590.	1.903	2.106	135082.	-177931.	16519.

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/19/1996 10:13:49 SDL RUN 1

DRA	ENTECH E	PA WGINKKKI	.NG 19603		G. MEADE	ONI INGMICATOR		0 - EXISTING	10:13:45 30	n KON I
SH-1		HOURLY-							PAGE	1- 3
мморни	AC-21	AC	-21	AC-21	AC-21	AC-25	AC-25	AC-25	AC-25	
	COOLING		IPPLY	COOLING	HEATING	HEATING	COOLING	SUPPLY	COOLING	
	BLECTRIC		ECTRIC	CAPACITY	CAPACITY	GAS	BLECTRIC	BLECTRIC	CAPACITY	
	KW	KV	i	BTU/HR	BTU/HR	BTU/HR	KW	KW	BTU/HR	
	(47)		(49)	(70)	(78)	(45)	(47)	(49)	(70)	
MONTHLY	SUMMARY (	JAN)								
MN	0.0	00	2.189	133190. 171647.	-184909.	1600.	0.000	2.248		
MX	0.0		2.189	171647.	-184909.	147269.	0.012	2.248	176019.	
SM	0.0	20	1628.541	113753344.	-137571984.	40305636.	0.044	1672.437	116649432.	
AV	0.0		2.189	152894.	-184909.	54174.	0.000	2.248	156787.	
MONTHLY	SUMMARY (	PRB)								
MN	0.0		2.189	131878.	-184909.	1600.	0.000	2.248	135237.	
MX	0.0		2.189			146471.	0.037	2.248		
SM	0.0		1470.940		-124258568.	33017978.	0.050	1510.588	103526240.	
AV	0.0		2.189	150239.	-184909.	49134.	0.000	2.248	154057.	
MONTHLY	SUMMARY (	MAR)								
MIN	0.0	00	2.189	122976. 159289.	-184909.	1600.	0.000	2.248	126108.	
MCK	0.0	39	2.189	159289.	-184909.	107774.	0.008	2.248	163346.	
SM	0.0	85	1628.541		-137571984.		0.014	1672.437	110360736.	
AV	0.0	00	2.189	144682.	-184909.	26171.	0.000	2.248	148334.	
MONTHLY	SUMMARY (	APR)								
MN	0.0	00	2.189	124842. 154822.	-184909.	1600.	0.000	2.248		
MX	3.6			154822.	-184909.	91364.	2.858	2.248	158765.	
SM	49.6	92	1576.007	100812032.	-133134184.	7648168.	29.764	1618.487		
AV	0.0	69	2.189	140017.	-184909.	10622.	0.041	2.248	143370.	
MONTHLY	SUMMARY (	MAY)								
MIN	0.0	00	2.189	115740.		1600.	0.000	2.248		
MX	8.9	14	2.189	149725.	-184909.	80962.	9.022	2.248		
SM	1603.3	56	1628.541	99328856.	-137571984.	7633266.	1533.348	1672.437		
AV	2.1	55	2.189	133507.	-184909.	10260.	2.061	2.248	136966.	
MONTHLY	Y SUMMARY (	JUN)		•						
MN	0.0	00	2.189	116517.		1600.	0.000	2.248	119490.	
MX	12.9	15	2.189	143805.		30269.	13.225	2.248		
SM	3261.4	98	1576.007	94535808.		2029009.	3266.604	1618.487		
AV	4.5	30	2.189	131300.	-184909.	2818.	4.537	2.248	134717.	
MONTHLY	Y SUMMARY (	JUL)								
MN	0.0	00	2.189	118111.		1600.				
MX	13.0	80	2.189	147179.		13050.				
SM	4072.3	02	1628.541	98967768.		1274254.	4104.737		101540504.	
AV	5.4	74	2.189	133021.	-184909.	1713.	5.517	2.248	136479.	

DOB-2.1D 1/19/1996 BUILDING 2790 - EXISTING 19603 FT. GEORGE G. MEADE READING. PA - HOURLY-REPORT PAGE 2- 3 SH-1 AC-21 AC-21 AC-21 AC-21 AC-25 AC-25 AC-25 AC-25 COOLING SUPPLY COOLING HRATING HEATING COOLING SUPPLY COOLING BLECTRIC BLECTRIC CAPACITY CAPACITY GAS BLECTRIC BLECTRIC CAPACITY KW KW BTU/HR BTU/HR BTU/HR KW KW BTU/HR ---- (70) ---- (78) ---- (45) ---- (47) ---- (70) ---- (47) --- (49) ---- (49) MONTHLY SUMMARY (AUG) 2.189 118199. -184909. 1600. 121162. 0.000 2.248 MN 0.000 13.141 144742. -184909. 37929. 2.189 13.457 2.248 148463. MX SM 1628.541 99142136. -137571984. 1823924. 3917.594 1672.437 101751656. AV 5.261 2.189 133256. -184909 2452. 5.266 2.248 136763. MONTHLY SUMMARY (SEP) 2.189 119722. -184909 1600. 0.000 2.248 122778. ΜX 12.077 2.189 146703. -184909. 46410. 12.277 2.248 150773. 95237368. -133134184. 3682884. SM 2554.837 1576.007 2496.614 1618.487 97733152. ΑV 2.189 5115. 3.468 2.248 135740. 3.548 MONTHLY SUMMARY (OCT) 2.189 119312. -184909. 1600. 122351. MN 0.000 0.000 2.248 -184909. 2.189 151894. 74092. 7.615 2.248 155763. MX 7.802 1628.541 101189256. -137571984. 9335572. 933.741 1672.437 103780312. A۷ 1.382 2.189 136007. -184909. 12548. 1.255 2.248 139490 MONTHLY SUMMARY (NOV)

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RZDOR - BLITE SOFTWARE DEVELOPMENT INC

10:13:49 SDL RUN 1

ENTECH ENGINEERING

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MONTHLY SUMMARY (DEC)

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VRARLY SUMMARY

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ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/19/1996 10:13:49 SDL RUN 1
PREDING: PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - EXISTING

RRA	DING, PA	19603	FT. GEORGE	G. MEADE		BUILDING 279	00 - EXISTING		
H-1	- HOU	RLY-REPORT						PAGE :	1-
MDDHH	AC-25	AC-22	AC-22	AC-22	AC-22	AC-22	AC-23	AC-23	
	HEATING	HRATING	COOLING	SUPPLY	COOLING	HRATING	HEATING	COOLING	
	CAPACITY	GAS	BLECTRIC	BLECTRIC	CAPACITY	CAPACITY	GAS	ELECTRIC	
	BTU/HR	BTU/HR	KW	KW	BTU/HR	BTU/HR	BTU/HR	KW	
	(78)	(45)	(47)	(49)	(70)	(78)	(45)	(47)	
ONTHLY	SUMMARY (JAN)								
MN	-189893.	1600.	0.000	2.183	132851.	-184410.	1600.	0.000	
MX	-189893.	130752.	0.039	2.183	171210.	-184410.	130752.	0.039	
SM	-141280096.	31741898.	0.043	1624.151	113464168.	-137201232.	31741898.	0.043	
AV	-189893.	42664.	0.000	2.183	152506.	-184410.	42664.	0.000	
ONTHLY	SUMMARY (FEB)								
MN	-189893.	1600.	0.000	2.183	131542.	-184410.	1600.	0.000	
MX	-189893.	131275.	0.000	2.183	171210.	-184410.	131275.	0.000	
SM	-127607824.	26257300.	0.000	1466.975	100705472.	-123923688.	26257300.	0.000	
AV	-189893.	39073.	0.000	2.183	149859.	-184410.	39073.	0.000	
ONTHLY	SUMMARY (MAR)								
MN	-189893.	1600.	0.000	2.183	122896.	-184410.	1600.	0.000	
MOX		94785.	0.048	2.183	158883.	-184410.	94785.	0.048	
	-141280096.		0.107	1624.151	107382200.	-137201232.	14175983.	0.107	
AV	-189893.	19054.	0.000	2.183	144331.	-184410.	19054.	0.000	
ONTHLY	SUMMARY (APR)								
MIN	-189893.	1600.	0.000	2.183	124524.	-184410.	1600.	0.000	
MX	-189893.	78802.	3.838	2.183	154428.	-184410.	78802.	3.838	
SM	-136722672.	5305051.	63.319	1571.759	100607640.	-132775384.	5305051.	63.319	
AV	-189893.	7368.	0.088	2.183	139733.	-184410.	7368.	0.088	
ONTHLY	SUMMARY (MAY)								
MN	-189893.	1600.	0.000	2.183	115445.	-184410.	1600.	0.000	
MX	-189893.	70724.	9.008	2.183	149344.	-184410.	70724.	9.008	
SM	-141280096.	6366225.	1638.531	1624.151	99064696.	-137201232.	6366225.	1638.531	
ΑV	-189893.	8557.	2.202	2.183	133151.	-184410.	8557.	2.202	
ONTHLY	SUMMARY (JUN)								
MIN	-189893.	1600.	0.000	2.183	116214.	-184410.	1600.	0.000	
MX	-189893.	25643.	12.898	2.183	143439.	-184410.	25643.	12.898	
SM	-136722672.	1798612.	3279.619	1571.759	94289688.	-132775384.	1798612.	3279.619	
AV	-189893.	2498.	4.555	2.183	130958.	-184410.	2498.	4.555	
ONTHLY	SUMMARY (JUL)								
MN	-189893.	1600.	0.000	2.183	117810.	-184410.	1600.	0.000	
MX	-189893.	10082.	12.976	2.183	146975.	-184410.	10082.	12.976	
SM	-141280096.	1239239.	4064.665	1624.151	98738416.	-137201232.	1239239.	4064.665	
AV	-189893.	1666.	5.463	2.183	132713.	-184410.	1666.	5.463	

ENTECH ENGINEERING BZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/19/1996 10:13:49 SDL RUN 1 READING, PA 19603 FT. GRORGE G. MEADE BUILDING 2790 - EXISTING

REA	DING, PA	19603	FT. GBORGE	G. MEADE		BUILDING 279	00 - EXISTING	
SH-1		RLY-REPORT						PAGE 2- 4
	AC-25	AC-22	AC-22	AC-22	AC-22	AC-22	AC-23	AC-23
	HEATING CAPACITY BTU/HR	HRATING GAS BTU/HR	COOLING BLECTRIC KW	SUPPLY BLECTRIC KW	COOLING CAPACITY BTU/HR	CAPACITY	HBATING GAS BTU/HR	COOLING ELECTRIC KW
	(78)	(45)	(47)	(49)	(70)	(78)	(45)	(47)
MONTHLY	SUMMARY (AUG)							
		1600.	0.000	2.183	117921.	-184410.	1600.	0.000
MX	-189893.	34014.	13.116	2.183	144375.	-184410.	34014.	13.116
SM	-141280096.	1663531.	3909.750	1624.151	98903264.	-184410. -137201232.	1663531.	3909.750
						-184410.		
MONTHLY	SUMMARY (SEP)							
MN	-189893. -189893.	1600.	0.000	2.183	119396.	-184410. -184410.	1600.	0.000
MX	-189893.	39483.	12.059	2.183	146450.	-184410.	39483.	12.059
SM	-136722672.	3079856.	2545.617	1571.759	95014048.	-132775384.	3079856.	2545.617
AV	-189893.	4278.	3.536	2.183	131964.	-184410.	4278.	3.536
MONTHLY	SUMMARY (OCT)							
MN	-189893	1600	0.000	2.183	119008	-184410.	1600	0.000
MY	-189893	65385	7.770	2.183	151507	-184410	65385	7 770
CM	-141290096	7463873	1040 289	1624 151	100932704	-184410. -137201232.	7463823	7040 289
777	-189893.	10032	1 398	2 183	135662	-184410.	10022	1 200
AV	-169693.	10034.	1.330	2.103	133002.	-104410.	10032.	2.330
MONTHLY	SUMMARY (NOV)							
MIN	-189893.	1600.	0.000	2.183	130244.	-184410. -184410.	1600.	0.000
MX	-189893.	77948.	5.613	2.183	160426.	-184410.	77948.	5.613
SM	-136722672.	11724183.	92.759	1571.759	103564560.	-132775384.	11724183.	92.759
	-189893.		0.129	2.183	143840.	-184410.	16284.	0.129
MONTHLY	SUMMARY (DEC)							
MN	-189893.	1600.	0.000	2.183	134170.	-184410.	1600.	0.000
MX	-189893.	105746.	0.009	2.183	164197.	-184410.	105746.	0.009
SM	-141280096	25558894.	0.009	1624.151	111235544	-184410. -137201232.	25558894	0.009
AV	-141280096. -189893.	34353.	0.000	2.183	149510.	-184410.	34353.	0.000
	SUMMARY							
MN	-189893.	1600.	0.000	2.183	115445.	-184410. -184410.	1600.	0.000
MX	-189893.	131275.	13.116	2.183	171210.	-184410.	131275.	13.116
						-1615433984.		
VA	-189893.	15568.	1.899	2.183	139715.	-184410.	15568.	1.899

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/19/1996 10:13:49 SDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - EXISTING

SH-1 - HOURLY-REPORT PAGE 1- 5

	DING, PA		FT. GEORG	E G. MEADE		BUILDING 27	90 - EXISTING		
H-1	= HO	URLY-REPORT						P/	AGB 1-
MODHH	AC-23	AC-23	AC-23	AC-24	AC-24	AC-24	AC-24	AC-24	
	SUPPLY	COOLING	HEATING	HEATING	COOLING	SUPPLY	COOLING	HRATING	
	BLECTRIC	CAPACITY	CAPACITY	GAS	BLECTRIC	BLECTRIC	CAPACITY	CAPACITY	
	KW	BTU/HR	BTU/HR	BTU/HR	KW	KW	BTU/HR	BTU/HR	
	(49)	(70)	(78)	(45)	(47)	(49)	(70)	(78)	
MONTHLY	SUMMARY (JAN)	)							
MN	2.183	132851.	-184410.	1600.	0.000	2.266	137600.	-191388.	
MX	2.183	171210.	-184410.	147760.	0.010	2.266	177330.	-191388.	
SM	1624.151	113464168.	-137201232.	39855864.	0.033	1685.606	117518448.	-142392496.	
AV	2.183	152506.	-184410.	53570.	0.000	2.266	157955.	-191388.	
ONTHLY	SUMMARY (FEB	)							
MN	2.183	131542.	-184410.	1600.	0.000	2.266	136245.	-191388.	
MX	2.183	171210.	-184410.	146894.	0.018	2.266		-191388.	
SM	1466.975	100705472.	-123923688.	32611816.	0.022	1522.483	104297992.	-128612568.	
AV	2.183	149859.	-184410.	48529.	0.000	2.266	155205.	-191388.	
ONTHLY	SUMMARY (MAR								
MN	2.183	122896.	-184410.		0.000	2.266	127048.	-191388.	
MX	2.183	158883.	-184410.	107953.	0.043	2.266	164563.	-191388.	
SM	1624.151	107382200.	-137201232.	19083850.	0.058	1685.606	111184960.	-142392496.	
AV	2.183	144331.	-184410.	25650.	0.000	2.266	149442.	-191388.	
ONTHLY	SUMMARY (APR								
MN	2.183		-184410.	1600.	0.000	2.266	128621.	-191388.	
MX	2.183	154428.	-184410.	91622.	2.966	2.266	159948.	-191388.	
SM	1571.759	100607640.	-132775384.	7497765.	31.825	1631.232	104004736.	-137799184.	
AV	2.183	139733.	-184410.	10414.	0.044	2.266	144451.	-191388.	
ONTHLY	SUMMARY (MAY	)							
MN	2.183			1600.	0.000	2.266	119572.	-191388.	
MX	2.183	149344.	-184410.	81267.	9.121	2.266	154682.	-191388.	
SM	1624.151		-137201232.	7579124.	1550.818	1685.606	102658296.	-142392496.	
AV	2.183	133151.	-184410.	10187.	2.084	2.266	137982.	-191388.	
	SUMMARY (JUN								
MIN	2.183	116214.	-184410.	1600.	0.000	2.266	120382.	-191388.	
MX	2.183	143439.	-184410.	30316.	13.316	2.266	148833.	-191388.	
SM	1571.759	94289688.	-132775384.	2012069.	3291.246	1631.232	97710768.	-137799184.	
AV	2.183	130958.	-184410.	2795.	4.571	2.266	135709.	-191388.	
	SUMMARY (JUL								
MIN	2.183	117810.		1600.	0.000	2.266		-191388.	
MX	2.183	146975.	-184410.	12644.	13.434	2.266	152032.	-191388.	
SM	1624.151	98738416.	-137201232.	1271481.	4139.688	1685.606		-142392496.	
AV	2.183	132713.	-184410.	1709.	5.564	2.266	137475.	-191388.	

DOE-2.1D 1/19/1996 BUILDING 2790 - EXISTING EZDOE - ELITE SOFTWARE DEVELOPMENT INC 10:13:49 SDL RUN 1 ENTECH ENGINEERING 19603 FT. GEORGE G. MEADE READING, PAGE 2- 5 - HOURLY-REPORT AC-23 AC-24 AC-24 AC-24 AC-24 AC-24 AC-23 AC-23 HEATING COOLING SUPPLY COOLING HEATING HEATING SUPPLY COOLING CAPACITY CAPACITY GAS BLECTRIC BLECTRIC CAPACITY CAPACITY BLECTRIC BTU/HR BTU/HR BTU/HR KW KW BTU/HR BTU/HR KW ---- (70) ---- (78) ---- (45) ---- (47) ---- (49) ---- (70) ---- (78) ---- (49) MONTHLY SUMMARY (AUG) 122054. -191388. 2.183 2.266 1600. 0.000 117921. -184410. 2.266 149529. -191388. -184410. 37996. 13.564 144375. ΜX 2.183 98903264. -137201232. 1807435. 3968.066 1685.606 102474152. -142392496. 1624.151 SM -191388. 132935. -184410. 2429 5.333 2.266 137734. ΑV MONTHT.Y STIMMARY (SEP) 2.183 119396. -184410. 1600. 0.000 2.266 123659. -191388 MN 151745. -191388. 2.183 146450. -184410. 45729. 12.461 2.266 ΜX 3542826. 2551.991 1631.232 98427416. -137799184. 1571.759 95014048. -132775384. -184410. 4921. 136705. -191388. 131964. ΑV 2.183 MONTHLY SUMMARY (OCT) 2.183 -191388. 1600. 0.000 2.266 123263. MN 119008. -184410. 73254. -191388. -184410. 7.826 2.266 156923. 151507. MX 2.183 100932704. -137201232. 8989893. 970.858 1685.606 104544752. -142392496. SM 1624.151 -191388. 2.266 140517. AV 2.183 135662. -184410. 12083. 1.305 MONTHLY SUMMARY (NOV) -191388. 2.183 2.183 1571.759 134365. 130244. -184410. 1600. 0.000 2.266 87004. 5.385 2.266 165337. -191388. -184410. МX 160426. 103564560. -132775384. 15740937. 71.801 1631.232 107235752. -137799184. SM 143840. -184410. 21862. 0.100 2.266 148939. -191388. ΑV 2.183 MONTHLY SUMMARY (DEC) 2.183 134170. -184410. 1600. 0.000 2.266 138182. -191388. MN -191388. 164197. -184410. 119039. 0.013 2.266 170066. -137201232. 0.027 115192112. 32740390. 1685.606 111235544. SM 1624.151 -184410. 44006. 0.000 2.266 154828. -191388. 149510. ΑV 2.183 YEARLY SUMMARY 2.183 115445. -184410. 1600. 0.000 2.266 119572. -191388. MN 177330. -191388. 2.183 171210. -184410. 147760. 13.564 2.266 172733440. 16576.434 19846.650 1267530624. -1676556672. -1615433984. 1223902464.

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AV

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ENTECH ENGINEERING BZDOB - BLITE SOFTWARE DEVELOPMENT INC DOB-2.1D 1/19/1996 10:13:49 SDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - EXISTING

REAL	DING, PA	19603	FT. GEORGE	G. MEADE		BUILDING 2790 - EXISTING	
SH-1	= HOU	RLY-REPORT					PAGE 1- 6
MMDDHH	AC_FRONT	AC_FRONT	AC_FRONT	AC_FRONT	AC_FRONT		
	HRATING	COOLING	SUPPLY	COOLING	HEATING		
	GAS	ELECTRIC	BLECTRIC	CAPACITY	CAPACITY		
	BTU/HR	KW	KW	BTU/HR	BTU/HR		
	SIO/IIR	201	200	210,120	010, tat		
	(45)	(47)	(49)	(70)	(78)	•	
MONTHLY	SUMMARY (JAN)						
MN	11347.	0.000	4.496	268727.	-379785.		
MX	368360.	0.000	4.496	346317.	-379785.		
SM	142900192.	0.000	3344.874	229502976.	-282560192.		
AV	192070.	0.000	4.496	308472.	-379785.		
MONTHLY	SUMMARY (FEB)						
MIN	1600.	0.000	4.496	264763.	-379785.		
MX	440950.	0.000	4.496	346317.	-379785.		
SM	121165072.	0.000	3021.177	203613888.	-255215648.		
AV	180305.	0.000	4.496	302997.	-379785.		
MONTHLY	SUMMARY (MAR)						
MN	1600.	0.000	4.496	248118.	-379785.		
MX	330079.	0.032	4.496	321384.	-379785.		
SM	86709904.	0.064	3344.874	216999008.	-282560192.		
AV	116546.	0.000	4.496	291665.	-379785.		
MONTHLY	SUMMARY (APR)						
MN	1600.	0.000	4.496	247629.	-379785.		
MX	254967.	0.058	4.496	312371.	-379785.		
SM	38655840.	0.074	3236.975	201730384.	-273445344.		
AV	53689.	0.000	4.496	280181.	-379785.		
MONTHLY	SUMMARY (MAY)						
MN	1600.	0.000	4.496	233518.	-379785.		
MX	224805.	15.479	4.496	302088.	-379785.		
SM	27181096.	1778.686	3344.874	201088752.	-282560192.		
AV	36534.	2.391	4.496	270281.	-379785.		
MONTHLY	SUMMARY (JUN)						
MIN	1600.	0.000	4.496	232335.	-379785.		
MX	89968.	25.744	4.496	292105.	-379785.		
SM	5871209.	5087.411	3236.975	192372912.	-273445344.		
AV	8154.	7.066	4.496	267185.	-379785.		
MONTHLY	SUMMARY (JUL)						
MN	1600.	0.000	4.496	237099.	-379785.		
MIX	45651.	26.166	4.496	297519.	-379785.		
SM	2007224.	6965.901	3344.874	201776560.	-282560192.		
AV	2698.	9.363	4.496	271205.	-379785.		

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/19/1996 10:13:49 SDL RUN 1
RRADING. PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - EXISTING

RRAI	DING, PA	19603	FT. GEORG	E G. MEADE		BUILDING 2790 - EXISTING		
H-1	= HO	URLY-REPORT					PAGE	2-
	AC_FRONT	AC_FRONT	AC_FRONT	AC_FRONT	AC_FRONT			
	HRATING	COOLING	SUPPLY	COOLING	HRATING			
	GAS	RLECTRIC	BLECTRIC	CAPACITY	CAPACITY			
	BTU/HR	XW	XM	BTU/HR	BTU/HR			
	(45)	(47)	(49)	(70)	(78)			
ONTHLY	SUMMARY (AUG	)						
MIN	1600.	0.000	4.496	238089.	-379785.			
MX	101142.	26.668	4.496	294348.	-379785.			
SM	4184445.	6236.478	3344.874	202349296.	-282560192.			
AV	5624.	8.382	4.496	271975.	-379785.			
MONTHLY	SUMMARY (SEP	)						
MN	1600.	0.000	4.496	242425.	-379785.			
MX	124586.	22.272	4.496	298983.	-379785.			
SM	11754011.	3509.481	3236.975	193203328.	-273445344.			
AV	16325.	4.874	4.496	268338.	-379785.			
MONTHLY	SUMMARY (OCT	")						
MIN	1600.	0.000	4.496	240726.	-379785.			
MX	209464.	11.796	4.496	306464.	-379785.			
SM	35717080.	740.588	3344.874	204173344.	-282560192.			
AV	48007.	0.995	4.496	274427.	-379785.			
MONTHLY	SUMMARY (NOV	")						
MN	1600.	0.000	4.496 4.496	260846.	-379785.			
MX	253478.				-379785.			
SM	72342896.	0.140	3236.975	208748816.	-273445344.			
AV	100476.	0.000	4.496	289929.	-379785.			
	SUMMARY (DEC							
MIN	1600.	0.000	4.496					
MX	338044.	0.000	4.496					
SM	127090280.	0.000	3344.874		-282560192.			
AV	170820.	0.000	4.496	302214.	-379785.			
	SUMMARY	,	•					
MN	1600.	0.000						
MX	440950.	26.668	4.496		-379785.			
SM	675579264.	24318.822	39383.195		-3326918656.			
AV	77121.	2.776	4.496	283151.	-379785.			

real SH-2	ENTECH ENGINE DING, PA = HOUR	ERING 19603 LY-REPORT		LITE SOFTWARE E G. MEADE	DEVELOPMENT INC		.1D 1/19/1996 90 - EXISTING	
								PAGE 1- 1
MMDDHH	AC_3_8	AC_3_8	AC_3_8	AC_3_8	AC_3_8	AC-1_2	AC-1_2	AC-1_2
	HEATING GAS BTU/HR	COOLING BLECTRIC KW	SUPPLY BLECTRIC KW	COOLING CAPACITY BTU/HR	HEATING CAPACITY BTU/HR	HEATING GAS BTU/HR	COOLING ELECTRIC KW	SUPPLY ELECTRIC EW
	(45)	(47)	(49)	(70)	(78)	(45)	(47)	(49)
MONTHLY	SUMMARY (JAN)							
MIN	1600.	0.000	6,171	419198.	-675339.	1600.	0.000	6.590
MCX	648866.	0.000	6.171	540233.		528636.	0.035	6.590
SM	249252064.	0.000	4591.521		-502452000.	196586880.	0.035	4903.183
AV	335016.	0.000	6.171	481197.	-675339.	264230.	0.000	6.590
MONTHLY	SUMMARY (FEB)							
MN	1600.	0.000	6.171	413015.	-675339.	1600.	0.000	6.590
MX	692260.	0.000	6.171			541186.	0.007	6.590
SM	205744432.	0.000	4147.180	317625088.		161229120.	0.007	4428.682
AV	306167.	0.000	6.171	472656.	-675339.	239924.	0.000	6.590
MONTHLY	SUMMARY (MAR)							
MN	1600.	0.000	6.171	387049.	-675339.	1600.	0.000	6.590
MX	510673.	0.031	6.171			412173.	0.071	6.590
SM	151022320.	0.031	4591.521			112568472.	0.071	
AV	202987.	0.000	6.171	454937.	-675339.	151302.	0.000	4903.183 6.590
MONTHLY	SUMMARY (APR)							
MIN	1600.	0.000	6.171	390512.	-675339.	1600.	0.000	6.590
MX	430793.	0.044	6.171			346355.	0.054	6.590
SM	75598888.	- 0.066	4443.408			49898580.	0.129	4745.016
AV	104998.	0.000	6.171	436669.		69304.	0.000	6.590
MONTHLY	SUMMARY (MAY)							
MN	1600.	0.000	6.171	364274.	-675339.	1600.	0.000	6.590
MX	388901.	25.334	6.171			310309.	23.128	6.590
SM	54239380.	2790.134	4591.521			35850540.	2802.956	4903.183
AV	72902.	3.750	6.171	421001.	-675339.	48186.	3.767	6.590
MONTHLY	SUMMARY (JUN)							
MIN	1600.	0.000	6.171	364471.	-675339.	1600.	0.000	6.590
MX	176937.	42.155	6.171			124121.	37.126	6.590
SM	13192744.	8339.002	4443.408			7035835.	7781.230	4745.016
AV	18323.	11.582	6.171	419213.	-675339.	9772.	10.807	6.590
MONTHLY	SUMMARY (JUL)							
MN	1600.	0.000	6.171	369860.	-675339.	1600.	0.000	6.590
MX	115433.	41.063	6.171	473976.		63139.	37.778	6.590
SM	4399660.	11424.815	4591.521	319352064.		2106453.	10441.887	4903.183
AV	5914.	15.356	6.171	429237.	-675339.	2831.	14.035	6.590

19603 FT. GEORGE G. MEADE BUILDING 2790 - EXISTING READING, - HOURLY-REPORT SH-2 PAGE 2- 1 AC\_3\_8 AC\_3\_8 AC\_3\_8 AC\_3\_8 AC\_3\_8 AC-1\_2 AC-1\_2 AC-1 2 HEATING COOLING SUPPLY COOLING HRATING HEATING COOLING SUPPLY BLECTRIC RESCURIC CAPACITY GAS CAPACITY GAS BLECTRIC BLECTRIC BTU/HR BTU/HR BTU/HR ΚW KW BTU/HR KN KW. ---- (45) ---- (47) ---- (49) ---- (70) ---- (78) ---- (45) ---- (47) ---- (49) MONTHLY SUMMARY (AUG) 1600. 0.000 6.171 376938. -675339. MN 1600. 0.000 6.590 189918. 42.120 6.171 465903. -675339. 137603. 37.825 6.590 SM 9235072. 10371.334 4591.521 318897536. -502452000. 5050053. 9496.333 4903.183 AV 13.940 12413. 6.171 428626. -675339. 6788. 12.764 6.590 MONTHLY SUMMARY (SEP) MN 1600. 0.000 6.171 383810. -675339. 1600. 0.000 6.590 37.934 -675339. 184909. MX 244235. 6.171 472375. 33.372 6.590 5786.736 24945502. 4443.408 303090272. -486243872. 15603298. 5460.445 4745.016 SM A۷ 34647. 8.037 6.171 420959. -675339. 21671. 7.584 6.590 MONTHLY SUMMARY (OCT) -675339. -675339. 0.000 6.171 375518. 1600. MN 1600. 0.000 6.590 478065. 355694. 20.797 6.171 272436. 17.388 6.590 SM 69667448. 1329.456 4591.521 317781632. -502452000. 45837980. 1191.267 4903.183 1.787 AV 93639. 6.171 427126. -675339. 61610. 1.601 6.590 MONTHLY SUMMARY (NOV) MN 1600. 413632. 0.000 6.171 406903 -675339. 1600. 0.000 6.590 . 0.814 MX 6.171 487280. -675339. 330143. 0.000 6.590 129756264. 1.383 4443.408 325309504. 97064648. 0.000 4745.016 ΑV 180217. 0.002 6.171 451819. -675339. 134812. 0.000 6.590 MONTHLY SUMMARY (DEC) 1600. 563064. MN 0.000 6.171 413015. -675339. 1600. 0.000 6.590 0.056 6.171 518105. -675339. MX 446285. 0.000 6.590 219610832. 0.056 4591.521 350708416. -502452000. 173056256. 4903.183 0.000 ΑV 295176. 0.000 6.171 471382. -675339. 232603. YEARLY SUMMARY MN 1600. 0.000 6.171 364274. -675339. 1600. 0.000 6.590 692260 37.825 37174.387 MX 42.155 6.171 540233. -675339 541186. 6.590 40043.012 54061.461 1206664704. 3878706944. -5915967488. 901888128. SM 57731.027 102955. 137747. 4.571 6.171 442775. -675339. 4.244 6.590

BZDOB - BLITE SOPTWARE DEVELOPMENT INC

DOE-2.1D 1/19/1996 10:13:49 SDL RUN 1

ENTECH ENGINEERING

DOB-2.1D 1/19/1996 BUILDING 2790 - EXISTING ENTECH ENGINEERING BZDOB - BLITE SOFTWARE DEVELOPMENT INC 10:13:49 SDL RUN 1 FT. GEORGE G. MEADE READING, 19603 SH-2 - HOURLY-REPORT PAGE 1- 2 AC\_EXP AC-1\_2 AC-1\_2 AC\_EXP AC\_EXP HHCOMM AC EXP AC EXP COOLING HEATING HEATING COOLING SUPPLY COOLING HEATING RESCURIC CAPACITY BLECTRIC CAPACITY CAPACITY GAS CAPACITY BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR ---- (70) ---- (78) ---- (45) ---- (47) ---- (49) ---- (70) ---- (78) MONTHLY SUMMARY (JAN) 390358. -556719. 82416. 0.000 6.171 365443. -521332. МX 503066. -556719. 541912. 0.000 6.171 470959. -521332. -414198944. 234761600. 0.000 4591.521 312102272. -387871104. SM 333380096. ΑV 448092. -556719. 315540. 0.000 6.171 419492. -521332. MONTHLY SUMMARY (FEB) -556719. MN 384600. 17320. 0.000 6.171 360053. -521332. 503066. -556719. 638951. 0.000 6.171 470959. -521332. MX 201392064. 295774208. -374115200. 0.000 4147.180 276895552. -350335200. 440140. λV -556719. 299691. 0.000 6.171 412047. -521332. MONTHLY SUMMARY (MAR) 360421. -556719 1600. 0.000 6.171 337417. -521332. -556719. 499925. MX 466849 0.065 6.171 437052. -521332. -414198944. 158439792. 0.102 4591.521 295090848. 315221152. -387871104. SM -556719. 212957. 0.000 MONTHLY SUMMARY (APR) -556719. 0.000 360541. 329490. -521332. MN ΜX 453756. -556719. 387902. 0.064 6.171 424795. -521332. 83833512. SM 293141376 -400837696. 0.086 4443.408 273886688. -375359136 -556719. 0.000 116435. 380398. AV 407141. 6.171 -521332. MONTHLY SUMMARY (MAY) -556719. 0.000 6.171 317563. MN 339213. 1600. -521332. -556719. 338529. 15.362 410811. 438818. 6.171 -521332. ΜX 291744480. -414198944. 56613372. 1234.007 4591.521 273814624. -387871104. ΑV 392130. -556719. 76093. 1.659 6.171 368030. -521332 MONTHLY SUMMARY (JUN) 337585. -556719. 1600 0.000 6.171 315953. -521332. -556719. 150216. 31.371 MX 423616. 6.171 402325. -521332. -400837696. 13446205. 5029.984 4443.408 278103904. -375359136. SM ΑV 386255. -556719. 18675. 6.986 6.171 364831. -521332.

MONTHLY SUMMARY (JUL)

344415.

429870.

391241.

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ΑV

DOB-2.1D 1/19/1996 BUILDING 2790 - EXISTING ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC 10:13:49 SDL RUN 1 READING, 19603 FT. GEORGE G. MEADE SH-2 - HOURLY-REPORT PAGE 2- 2 AC\_EXP AC-1\_2 AC-1\_2 AC\_EXP AC\_EXP AC\_EXP AC\_EXP HRATING COOLING SUPPLY HEATING COOLING HEATING COOLING CAPACITY BLECTRIC BLECTRIC CAPACITY CAPACITY CAPACITY GAS BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR ---- (45) ---- (47) ---- (70) ---- (78) ---- (49) ---- (70) ---- (78) MONTHLY SUMMARY (AUG) 345345. -556719. 1600. 0.000 6.171 322804. -521332. 154141. 6.171 4591.521 MX 427626. -556719. 32.522 403790. -521332. 8585297. 6426.534 -414198944. 276746816. -387871104. 292054944. SM A٧ 392547. -556719. 11539. 6.171 371972. -521332. MONTHLY SUMMARY (SEP) -556719. 1600. 0.000 -521332. MN 350860. 6.171 329490. 432876. -556719. 198051. 24.717 408907. 6.171 MX 279856864. -400837696. 23930834. 3247.383 4443.408 263516688. -375359136. -556719. 365995. AV 388690. 33237. 4.510 6.171 -521332. MONTHLY SUMMARY (OCT) MN 349683. -556719. 1600. 0.000 6.171 327365. -521332. -556719. 318258. 10.836 416762. -521332. MX 445175 6.171 -414198944. 71176168. 414.984 4591.521 277493664. -387871104. 296446560. SM -556719. 95667. 0.558 6.171 372975. -521332. MONTHLY SUMMARY (NOV) -556719. 1600. 0.000 6.171 354726. -521332. MX 453756. -556719. 370123. 0.000 6.171 424795. -521332. 129093024. 283361952. -375359136. -400837696. 0.000 4443.408 303364032. SM ΑV 421339. 393558. MONTHLY SUMMARY (DRC) -556719. 52245. 0.000 6.171 360053. -521332. 384600. MN -556719. 506512. 0.000 6.171 451668. -521332. 326622848. -414198944. 210555344. 0.000 4591.521 305761312. -387871104. -556719. 283005. 0.000 6.171 410970. -521332. AV 439009. YEARLY SUMMARY -521332. -556719. 1600. 0.000 6.171 315953. MN 337585. 638951. -556719. 32.806 6.171 470959. -521332. MX 503066. 3596794368. -4876858880. 1195881088. 23676.609 54061.461 3377559040. -4566869504.

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-521332.

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-556719.

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ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/19/1996 10:13:49 FDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - EXISTING
REPORT- FV-A EQUIPMENT SIZES WEATHER FILE- BALTIMORE, MD

NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER
EQUIPMENT SIZE INSTD (METU/H) AVAIL (METU/H) AVAIL (METU/H) AVAIL (METU/H) AVAIL (METU/H) AVAIL

HW-BOILER

0.000 1 1

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/19/1996 10:13:49 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - EXISTING

WEATHER FILE- BALTIMORE, MD

5113.3 10390.3 \* 20960.1

REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY

SITE ENERGY SOURCE 4 7 11 12 13 2 3 5 10 TOTAL. TOTAL TOTAL TOTAL. WASTED FURL RLRC FURL. RLRC PURL. TOTAL TOTAL. SOURCE HRAT COOLING BLECTR RCVRED **RCVRABL** INPUT INPUT INPUT INPUT INPUT FUEL SITE LOAD LOAD ENERGY ENERGY COOLING COOLING HEATING HEATING BLECT INPUT ENERGY ENERGY MONTH LOAD 1086.4 1460.8 \* 2210.6 374.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 JAN 0.0 0.0 109.6B 0.0B 0.0B FEB 0.0 0.0 333.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 906.8 1240.5 \* 1908.8 97.7E O.OE 0.0B MAR 0.0 0.0 383.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 628.4 1012.0 \* 1780.3 112.3E 0.0R 0.0E 371.7 0.0 0.0 293.1 APR 0.0 0.0 0.0 0.0 0.0 1409.5 108.9E 0.0E 0.08 438.7 0.0 0.0 664.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 226.1 1543.4 MAY 128.5E 0.0B 0.08 0.0 602.9 1702.1 0.0 548.8 0.0 0.0 0.0 0.0 0.0 54.2 JUN 0.0 0.0 160.7B Q.OE 0.0B JUL 0.0 0.0 599.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 22.5 621.9 \* 1822.6 0.0E 175.6B 0.0B 0.0 0.0 AUG 0.0 0.0 601.2 0.0 0.0 0.0 0.0 0.0 40.5 641.7 \* 1845.8 0.08 176.1B 0.0E 0.0 SEP 0.0 0.0 491.5 0.0 0.0 0.0 0.0 0.0 0.0 101.3 592.9 \* 1577.4 144.0B 0.08 0.0E OCT 0.0 0.0 405.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 283.7 689.3 \* 1501.9 118.8E 0.0E 0.0E 0.0 0.0 354.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 527.0 881.0 \* 1590.2 0.0E 103.7B O.OR DEC 0.0 0.0 374.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 943.2 1317.6 \* 2067.4 109.6B 0.08 0.0B

NOTE-- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES POLLOWED BY B ARE IN MWH (THOUSANDS OF KWH)

0.0

0.0

0.0

0.0

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5277.0

1545.5B

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ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/19/1996 10:13:49 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - EXISTING
REPORT- PS-B MONTHLY PEAK AND TOTAL ENERGY USE WEATHER FILE- BALTIMORE, MD

МО	UTILITY-	BLECTRICITY	FUEL-OIL	NATURAL-GAS
	TOTAL (MBTU)	374.351	0.000	1086.428
JAN	PRAK (KBTU)	878.266	0.000	3146.579
0,2	DY/HR	6/9	31/24	31/ 7
	TOTAL (MBTU)	333.658	0.000	906.847
FEB	PRAK (KBTU)	878.291	0.000	3376.558
	DY/HR	26/ 9	28/24	12/6
	TOTAL (MBTU)	383.584	0.000	628.385
MAR	PEAK (KBTU)	878.327	0.000	2490.928
	DY/HR	28/ 9	31/24	5/8
	TOTAL (MBTU)	371.733	0.000	293.139
APR	PRAK (KBTU)	977.351	0.000	2059.329
	DY/HR	19/19	30/ 1	9/ 7
	TOTAL (MBTU)	438.671	0.000	226.091
MAY	PRAK (KBTU)	1392.848	0.000	1839.409
	DY/HR	21/17	31/ 1	10/ 7
	TOTAL (MBTU)	548.772	0.000	54.156
JUN	PRAK (KBTU)	1689.427	0.000	748.828
	DY/HR	28/17	30/ 1	22/ 7
	TOTAL (MBTU)	599.452	0.000	22.492
JUL	PRAK (KBTU)	1701.746	0.000	394.710
	" DY/HR	25/17	31/ 1	21/ 5
	TOTAL (MBTU)	601.158	0.000	40.508
AUG	PRAK (KBTU)	1710.840	0.000	852.452
	DY/HR	18/17	31/ 1	22/ 4
	TOTAL (MBTU)	491.546	0.000	101.331
SEP	PRAK (KBTU)	1610.253	0.000	1073.218
	DY/HR	1/17	30/ 1	30/ 7
	momat (america	405.663	0.000	283.668
OCT	TOTAL (MBTU) PRAK (KBTU)	1292.527	0.000	1610.285
OCI	DY/HR	13/17	31/24	5/7
	DI/IIK	23, 2.	,	-, .
	TOTAL (MBTU)	354.028	0.000	527.012
NOV	PRAK (KBTU)	1033.762	0.000	1965.501
	DY/HR	2/19	30/24	25/ 7
	TOTAL (MBTU)	374.352	0.000	943.243
DEC	PEAK (KBTU)	878.347	0.000	2695.021
	DY/HR	15/ 9	31/24	21/ 5
	one year	5276,969	0.000	5113.301
	USE/PEAK	1710.840	0.000	3376.558

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 1/19/1996 10:13:49 FDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - EXISTING
REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

ELECTRICAL LOADS PCT OF TOTAL LOAD MBTU SUPPLIED -----BLECTRICITY 5277.0 100.0 -----\*\*\*\*\*\*\*\*\*\*\*\* LOAD SATISFIED 5277.0 100.0 TOTAL LOAD ON PLANT 5277.1

10:13:49 PDL RUN 1

SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
BLECTRICAL LOADS	5277.1	5277.0	0.000	0.000	0

ENTECH ENGINEERING EZDOE - BLITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/19/1996 10:13:49 PDL RUN 1 READING, PA 19603 PT. GEORGE G. MEADE BUILDING 2790 - EXISTING
REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER FILE BALTIMORE, MD

	AVG	MAX	MON					
EQUIPMENT	OPER	LOAD	DAY	SIZE OPER				
	RATIO	(MBTU)	HR	(MBTU) HRS				
HW_BOTT.PP	0.000	0.000	0 0 0	0.000 0				

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 1/19/1996 10:13:49 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - EXISTING WEATHER FILE- BALTIMORE, MD

EQUIPMENT TOTALS

HW-BOILER	0.1		
NOMINAL SIZE (MBTU) NUMBER INSTALLED			0.000
FIRST COST (K\$)		0.0	0.0
ANNUAL COST (K\$) CYCLICAL COST (K\$)		0.1	0.1
TOTAL(K\$)			0.1
EQUIPMENT TOTAL	0.1		

ENTECH ENGINEERING BZDOE - BLITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/19/1996 10:13:49 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - EXISTING REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE WEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE MBTU -	BLECTRICITY	FUBL-OIL	NATURAL-GAS
CATEGORY OF USE			
SPACE HEAT	0.00	0.00	5113.29
SPACE COOL	879.69	0.00	0.00
HVAC AUX	1222.55	0.00	0.00
DOM HOT WTR	0.00	0.00	0.00
AUX SOLAR	0.00	0.00	0.00
LIGHTS	2778.51	0.00	0.00
VERT TRANS	0.00	0.00	0.00
MISC BQUIP	396.17	0.00	0.00
TOTAL	5276.91	0.00	5113.29

TOTAL SITE ENERGY 10390.27 MBTU 132.5 KBTU/SQFT-YR GROSS-AREA 132.5 KBTU/SQFT-YR NET-AREA TOTAL SOURCE ENERGY 20960.05 MBTU 267.3 KBTU/SQFT-YR GROSS-AREA 267.3 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 0.3
PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.0

NOTE ELECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

REA	ENTECH ENGINATIONS PA	19603	EZDOE - EI FT. GEORGI	LITE SOFTWARE : E G. MEADE		DOE-2 BUILDING 27		9:17:26 SDL RUN 1 PAGE 1- 1		
MMDDHH		AC-17	NC-17	AC-17	NC-37	AC-18	AC-18	AC-18		
PPIDDIM	AC-17	AC-17	AC-17	AC-17	AC-17	AC-18	AC-16	AC-18		
	COOLING	SUPPLY	HEATING	COOLING	HEATING	HEATING	COOLING	SUPPLY		
	ELECTRIC	ELECTRIC	GAS	CAPACITY	CAPACITY	GAS	ELECTRIC	ELECTRIC		
	KW	KM	BTU/HR	BTU/HR	BTU/HR	BTU/HR	KW	KW		
	(47)	(49)	(45)	(70)	(78)	(45)	(47)	(49)		
MONTHLY	Y SUMMARY (JAN)									
MN	0.000	0.000	1600.	0.	-182915. 0.	1600.	0.000	0.000		
MX	0.048	0.000 2.165	214161.	169898.	0.	194769.	0.000	2.106		
SM	0.059		19591772.	72034600.	-87616240.	12717925.	0.000	996.280		
AV	0.000	1.394	26333.	96821.	-117764.	17094.	0.000	1.339		
MONTHLY	SUMMARY (FEB)	ı								
MN	0.000	0.000	1600.	0.	-182915.	1600.	0.000	0.000		
MX	0.011			169898.		180399.				
SM					-79019232.			895.177		
AV	0.000	1.392			-117588.	14686.				
MONTHLY	SUMMARY (MAR)									
MN	0.000	0.000	1600.	ο.	-182915.	1600.	0.000	0.000		
MX	0.037	2 165	167576	156182.	0.					
SM	0.044				-85787072.	3979813.				
AV	0.000	1.365	9521.		-115305.					
MONTHIA	/ SUMMARY (APR)									
	0.000		1600	0	-182915	1600	0.000	0.000		
MX	4.318		1600. 97074.	153244	-182915. 0.	55204.	5.187	2.106		
SM	96.494				-82311596.					
VA	0.134	1.353	3053.		-114322.	1969.				
MONTHIA	Y SUMMARY (MAY)									
MN	0.000	0.000	1600	0	-132915.	1600	0.000	0.000		
MX	9.323	2.165		148199.	0.	71744.				
SM					-87067472.					
AV	2.002	1.385	3698.		-117026.	2527.		1.331		
MONTHE	Y SUMMARY (JUN)									
MN	0.000	0.000	1600.	n	-182915.	1600.	0.000	0.000		
MX	13.004					1600.				
SM	2898.305	974.385	1176582	57481956	-82311696.	1152000	2934 999	947.835		
AV	4.025	1.353	1634.	79836.	-114322.	1600.				
MONTHLY	Y SUMMARY (JUL)	ı								
MN	0.000	0.000	1600.	0.	-182915.	1600.	0.000	0.000		
MX	13.000	2.165	1600.	155867.	0.	1600.				
SM	3348.631			60582000	-85055416.					
AV	4.501	1.353	1600.		-114322.					

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:17:26 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW

			FT. GEORGI	E G. MEADE		BUILDING 27	90 - NEW		
{-1	= HOUF	LY-REPORT						PAG	SE 2-
	AC-17	AC-17	AC-17	AC-17	AC-17	AC-18	AC-18	AC-18	
	COOLING	SUPPLY	HEATING	COOLING	HEATING	HEATING	COOLING	SUPPLY	
	ELECTRIC	ELECTRIC	GAS	CAPACITY	CAPACITY	GAS	ELECTRIC	ELECTRIC	
	KW	KW	BTU/HR	BTU/HR	BTU/HR	BTU/HR	KW	KW	
	(47)	(49)	(45)	(70)	(78)	(45)	(47)	(49)	
ONTHLY	SUMMARY (AUG)								
MN					-182915.				
MX	13.056	2.165	39174.	149784.	0. -85238328.	17409.	12.736	2.106	
SM	3404.985	1009.030	1295349.	60331660.	-85238328.	1206209.	3416.549	979.429	
AV	4.577	1.356	1741.	81091.	-114568.	1621.	4.592	1.316	
ONTHLY	SUMMARY (SEP)								
MN	0.000	0.000	1600.	0.	-182915. 0.	1600.	0.000	0.000	
MX		2.165				21108.	12.137	2.106	
SM	2248.273	974.385	1421219.	58169480.	-82311696.	1240002.	2316.934	947.835	
AV	3.123	1.353	1974.	80791.	-114322.	1722.	3.218	1.316	
ONTHLY	SUMMARY (OCT)								
MM				0.	-182915.			0.000	
MX	7.860	2.165	102172.	150347.	0.	79482.	8.089	2.106	
SM	977.413	1022.021	3077396.	62689952.	-86335816.	1961094.	1109.146	979.429	
AV	1.314	1.374	4136.	84261.	-116043.	2636.	1.491	1.316	
ONTHLY	SUMMARY (NOV)								
MN	0.000	0.000	1600.	0.	-182915. 0.	1600.	0.000	0.000	
MX	5.709	2.165	144003.	159365.	0.	106507.	6.154	2.105	
SM	99.662	976.550	4647658.	63834164.	-82494608.	2511149.	140.538	952.047	
AV	0.138	1.356	6455.	88659.	-114576.	3488.	0.195	1.322	
ONTHLY	SUMMARY (DEC)								
			1600.		-182915.			0.000	
MX	0.007		169021.					2.106	
SM					-88164976.	8143546.	0.022	992.067	
AV	0.000	1.403	18736.	95353.	-118501.	10946.	0.000	1.333	
	SUMMARY								
MN	0.000	0.000	1600.	0.	~182915. 0.	1600.	0.000	0.000	
MX	13.056	2.165	214161.	169898.	0.	194769.	12.736	2.106	
	14563.358	12000.091	73101760.	760141440.	-1013714240.	47268612.	15083.435	11593.074	
AV	1.662	1.370	8345.	86774.	-115721.	5396.	1.722	1.323	

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:17:26 SDL RUN 1 READING, PA = HOURLY-REPORT BUILDING 2790 - NEW PA 19603 FT. GEORGE G. MEADE SH-1 PAGE 1- 2 . . . . . . . . . . . . . . . . . . . MMDDHH AC-18 AC-18 AC-19 AC-19 AC-19 AC-19 AC-19 AC-21 HEATING COOLING SUPPLY HEATING COOLING HEATING HEATING COOLING CAPACITY GAS ELECTRIC ELECTRIC CAPACITY CAPACITY CAPACITY GAS KW . BTU/HR BTU/HR BTU/HR KW BTU/HR BTU/HR BTU/HR .---(49) ----(78) ---- (45) ---- (47) ---(70) ---- (78) ---- (70) ----(45) MONTHLY SUMMARY (JAN) ٥. -177931. 0.000 0.000 2.106 0. -177931. 165524. 1600. 1600. MN 0. 194769. 0.000 165524. 214814. MX 0. 69320392. -84161280. 12717925. 0.000 996.280 69320392. -84161280. 19190080. 93173. 17094. 93173. ΑV -113120. 0.000 1.339 -113120. 25793. MONTHLY SUMMARY (FEB) 0.000 ٥. -177931. 1600 0.000 Ο. -177931. 1600. U. 165524. 165524. 180399. МX ٥. 0.042 2.106 0. 198082. -75620608. 0.077 895.177 60945904. -75620608. 9868724. SM 60945904. 14399951. 90693. -112531. 0.000 AV 1.332 -112531. 21428. MONTHLY SUMMARY (MAR) 0. 152162. -177931. 1600. 0.000 0.000 -177931. 1600. MN 0. ٥. 155187. 0.562 2.106 152162. ٥. ΜX -83093704. -83093704. SM 64424920. 3979813. 2.571 983.642 64424920. 5840583. 86593. 0.003 ΔV -111685. 5349. 1.322 86593. -111685 9194 MONTHLY SUMMARY (APR) MN Ο. -177931. 1600. 0.000 0.000 0. -177931. 1500. 149299. 55204. 5.187 2.106 149299. MX 0. Ο. 96383. 0. -80246808. -80246808. 60555992. 1417385. 219.710 949.941 60555992. 84106. ΑV -111454. 1969. 0.305 1.319 84106. -111454. 2994. MONTHLY SUMMARY (MAY) MN 0. -177931. 1600 0.000 0.000 0. -177931. 1500. 144384. 0. -83627488. 71744. 9.337 2.106 144384. \$3211. 2717723. MX 0. 1880373. 1597.585 989.961 59786684. -83627488. 59786684. ΑV 80358. -112403. 2527. 2.147 1.331 80358 -112403. 3653. MONTHLY SUMMARY (JUN) 1600. 0.000 MN -٥. -177931. 0.000 0. -177931. 1600. 143420. 12.580 2.106 143420. MX ٥. 1600. ٥. 9384. -80068880. 2934.999 947.835 -80068880. 1175747. SM 55989232. 1152000. 55989232. 77763. -111207. 1600. 4.076 1.316 77763. -111207. 1633. MONTHLY SUMMARY (JUL) 1600. -177931. 0.000 0.000 0. -177931. MN 0. 151973. 151973. 12.684 2.106 979.429 0. -82737840. MX ٥. 1600. 1600. -82737840. 3345.303 1190400. 59010084. SM 59010084. 1190400. 79315. -111207. 1600. 4.496 1.316 79315.

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:17:26 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW

	DING, PA		FT. GEORGI	E G. MEADE		BUILDING 27	90 - NEW	
H-1	= HOU	RLY-REPORT						PAGE
	AC-18	AC-18	AC-19	AC-19	AC-19	AC-19	AC-19	AC-21
	COOLING	HEATING	HEATING	COOLING	SUPPLY	COOLING	HEATING	HEATING
	CAPACITY	CAPACITY	GAS	ELECTRIC	ELECTRIC	CAPACITY	CAPACITY	GAS
	BTU/HR	BTU/HR	BTU/HR	KW	KW	BTU/HR	BTU/HR	BTU/HR
	(70)	(78)	(45)	(47)	(49)	(70)	(78)	(45)
MONTHLY	SUMMARY (AUG)							
MIN	0.			0.000	0.000	0.	-177931.	1600.
MX	146020.	0.	17409.	12.736	2.106	146020.	0.	39062.
SM	58631896.	-82737840.	1206209.	3416.549	979.429	58631896.	-82737840.	1290972.
¥Δ	78806.	-111207.	1621.	4.592	1.316	78806.	-111207.	1735.
MONTHLY	SUMMARY (SEP)							
MN	0.	-177931.	1600. 21108.	0.000 12.137	0.000	0.	-177931. 0.	1600.
MX					2.106	148671.	0.	30677.
SM	56652504.	-80068880.	1240002.	2316.934	947.835	56652504.	-80068880.	1377177.
ÄV	78684.	-111207.	1722.	3.218	1.316	78684.	-111207.	1913.
MONTHLY	SUMMARY (OCT)							
927							-177931.	
: :X	146476.	0.	79482.	8.389	2.106	146476.	0. -82737840.	97839.
λV	80819.	-111207.	2636.	1.491	1.316	80819.	-111207.	3904.
MONTHLY	SUMMARY (NOV)							
MIN	0.	-177931.	1600.	0.300	0.000	0.	-177931. 0.	1600.
MX	153870.			5.154	2.106	153870.	0.	141482.
SM	62408312.	-80424744.	2511149.	140.538	952.C47	62408312.	-80424744.	4449142.
AV	85678.	-111701.	3488.	0.195	1.322	86678.	-111701.	6179.
MONTHLY	SUMMARY (DEC)							
MN		-177931.	1600.		0.000	0.	-177931.	1600.
МX					2.106	158744.	0.	169231.
	67484216.				992.067	67484216.	-83805424.	13507875.
AV	90705.	-112642.	10946.	0.300	1.333	90705.	-112642.	18155.
	SUMMARY							
-21	0.	-177931.	1600. 194769.	0.300	0.000	0.	-177931. 0.	1600.
SM	735339264.	-979331392.	47268612.	15083.435			-979331392.	71199904.
AV	93943.	-111796.	5396.	1.722	1.323		-111796.	8128.

19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW SH-1 = HOURLY-REPORT PAGE 1- 3 ..... AC-21 AC-21 AC-21 MMDDHH AC-21 AC-25 AC-25 AC-25 AC-25 COOLING SUPPLY COOLING HEATING HEATING COOLING SUPPLY COOLING CAPACITY CAPACITY ELECTRIC ELECTRIC GAS ELECTRIC ELECTRIC CAPACITY КW BTU/HR BTU/HR BTU/HR KW KW KW BTU/HR ---- (47) ----(49) ----(70) ---- (78) ---- (45) ----(47) ----(49) --- (70) MONTHLY SUMMARY (JAN) 0.000 0.000 0. -184909. 1600. 0.000 0.000 ٥. 171647. 223474. мx 0.000 2.189 0. 0.006 2.248 176019. -88571160. 72776376. SM 0.000 1048.483 24546172. 0.006 1081.240 74932664. 97818. ۸V 0.000 1.409 -119047. 32992. 0.000 1.453 100716. MONTHLY SUMMARY (FEB) 0.000 0.000 0.000 2.189 -184909. MN α. 1600 0.000 ο. 171647. 211554. МX 0.047 0. 176019. 0.016 2.248 0.075 64059280. -79695552. 0.015 982.332 66643768. 95326. ۸V 0.000 1.404 -118595. 27543. 0.000 MONTHLY SUMMARY (MAR) 0.000 0.000 0. -184909. 1600. 0.000 M 0.000 157790. wx 0.033 2.189 ٥. 177602. 0.021 2.248 161809. -86722072. 67042100. 1026.594 9417397. 1056.513 SM 0.065 0.055 58863080 1.380 ΑV 0.000 -116562. 12658. 0.000 1.420 92558. MCMTHLY SUMMARY (APR) 0.000 0.000 Ο. -184909. 1600. :AN 0.000 0.000 ٥. 154822. 115451. ΆΧ. 4.517 2.189 Ο. 2.248 158765. -83208816. SМ 104.591 985.005 62562092. 2985247. 55.426 1011.555 64031128. -115568. Ä٧ 0.145 1.368 86892. 4146. 0.077 1.405 88932.

EZDOE - ELITE SOFTWARE DEVELOPMENT INC

DOE-2.1D 6/12/1996

9-17-26 SDL RUN 1

ENTECH ENGINEERING

MONTHLY SUMMARY (MAY) 0.000

MONTHLY SUMMARY (JUN)

MONTHLY SUMMARY (JUL)

9.440

1505.682

0.000 13.133

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-88016424.

-118302.

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-83208816.

-115568.

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-85982440.

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2.248 1045.274

1011.555

1078.992

2.248

153539.

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161349.

34373.

62773840.

59564072.

65070208.

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:17:26 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW

REAL	DING, PA	19603	FT. GEORG	E G. MEADE		BUILDING 279	0 - NEW		
SH-1		RLY-REPORT							PAGE 2- 3
					· · · · · · · · · · · · · · · · · · ·				
	AC-21	AC-21	AC-21	AC-21	AC-25	AC-25	AC-25	AC-25	
	COOLING	SUPPLY	COOLING	HEATING	HEATING	COOLING	SUPPLY	COOLING	
	ELECTRIC	ELECTRIC	CAPACITY	CAPACITY	GAS	ELECTRIC	ELECTRIC	CAPACITY	
	KW			BTU/HR		KW	KW	BTU/HR	
	(47)	(49)	(70)	(78)	(45)	(47)	(49)	(70)	
	SUMMARY (AUG)								
MN	0.000	0.000	0.	-184909.	1600.	0.000 13.513	0.000	0.	
MV	17 197	2 189	151348.	0.	43782.	13.513	2.248	155124.	
SM	3449.515	1020.027	60942488.	-86167344.	1357859.	3447.411	1047.521	62519464.	
λV	4.636	1.371	81912.	-115816.	1825.	4.634	1.408	84032.	
MONTHLY	SUMMARY (SEP)								
MM	0.000	0.000		~184909.	1600.	0.000		٥.	
MX	12.570	2.189	153756.	0.	41648.	12.856	2.248	157258.	
SM	2299.981	985.005	58750896.	-83208816.	1630083.	2238.269	1013.803	60420368.	
AV		1.368	81598.	-115568.	2264.	3.109	1.408	83917.	
MONTHLY	SUMMARY (OCT)								
MIN	0.000	0.000	0.	-184909.	1500.	0.000	0.000	0. 155763.	
MX	8.113	2.189	151894.	0. -87091888.	116254.	7.840	2.248	155763.	
SM	1019.131	1030.972	63194548.	-87091888.	3841314.	914.876	1065.505	65227744.	
VA	1.370	1.386	84939.	-117059.	5163.	1.230	1.432	87672.	
MONTHLY	SUMMARY (NOV)								
MN.	0.000	0.000	0.	-184909. 0.	1500.	0.000			
MX		2.189	161070.	0.	156767.	5.416		164338.	
SM	103.752	987.194	64502420.	-83393728.	6575068.	80.506	1020.547	66550396.	
AV	0.144	1.371	89587.	-115825.	9132.	0.112	1.417	92431.	
MONTHLY	SUMMARY (DEC)								
MIN	0.000			-184909.					
мX	0.005	2.189	164616.	0.	180326.	0.000	2.248	168809.	
SM	0.005	1052.861	71522744.	-88940976.	18210452.		1085.736		
AV		1.415	96133.	-119544.	24476.	0.000	1.459	98994.	
YEARLY	SUMMARY								
320	. 0.000	0.000	0.	-184909. 0.	- 1600.	0.000	0.000	0.	
MX	13.193	2.189	171647.	0.	223474.	13.513	2.248	176019.	
SM	14786.239	12124.316	767502528.	-1024208128.	92925344.	14484.380	12500.572	790248000.	
AV		1.384	87614.	-116919.	10608.	1.653	1.427	90211.	

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:17:26 SDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW

			FT. GEORGE	G. MEADE		BUILDING 279	90 - NEW	
H-1		RLY-REPORT						PAGE 1
	AC-25	AC-22		AC-22		AC-22		AC-23
	HEATING	HEATING	COOLING	SUPPLY	COOLING	HEATING	HEATING	COOLING
	CAPACITY	GAS	ELECTRIC	ELECTRIC	CAPACITY	CAPACITY	GAS	ELECTRIC
	BTU/HR	BTU/HR	KW		BTU/HR	BTU/HR	BTU/HR	KM
						210,121	210/111	
	(78)	(45)	(47)	(49)	(70)	(78)	(45)	(47)
ONTHLY	SUMMARY (JAN)							
MIN			0.000				1600.	
MX	0.	209380.	0.027		171210.			
SM	-91338336.	17537012.	0.027	1043.474	72442536.	-88148048.	17537012.	0.027
AV	-122767.	23571.	0.000	1.403	97369.	-118479.	23571.	0.000
ONTHLY	SUMMARY (FEB)							
MIN	-189893.	1600.	0.000	0.000	0. 171210.	-184410.	1600.	0.000
MX	٥.	1600. 193857.	0.022	2.183	171210.	0.	193857.	0.022
SM	-82983072.	13181638.					13181638.	
ΑV	-123487.	19616.	0.000	1.394	94657.	-117726.	19616.	0.000
ONTHLY	SUMMARY (MAR)							
MN	-189893.	1600.	0.000	0.000	٥.	-184410.	1600.	0.000
MX			0.015	2,183	157388.	0.	164164.	
SM		6073640.		1023.827			6073640.	0.039
ΑV			0.000		39903.			
ONTHLY	SUMMARY (APR)							
MN	-189893.	1600.	0.000	0.000	0.	-184410.	1600.	0.000
MX	0.	88372.	4.758	2.183	154428.	0.	88372	4.758
	-35451672.		132.389	982.350	62437760.	-82984568.	1864440.	132.389
	-118683.	4				-115256.		0.184
ONTHLY	SUMMARY (MAY)							
MN	-189893.		0.000	0.000 2.183	ð.	-184410.	1600.	0.000
МX	٥.	79325.	9.516	2.183	149344.	0.	79325.	9.516
SM	-91148456.		1539.583		62572768.	-87594824.	2469452.	1539.583
	-122511.				34103.	-117735.		
ONTHLY	SUMMARY (JUN)							
- MN	-189893.	1600.	0.000	0.000	٥.	-184410.	1600. 8169.	0.000
MX		8169.	13.102	2.183	148172.	0.	8169.	13.102
SM			2948.349		57917340.	-82984568.		2948.349
	-118683.			1.364				
ONTHLY	SUMMARY (JUL	)						
MN	-189893.	1600.	0.000	0.000	0.	-184410.	1600.	0.000
XV.	٥.	1600.	13.101	2.183	157042.	0.	1600.	13.101
SM	-88300064.	1190400.	3385.485				1190400.	3385.485
AV								

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:17:26 SDL RUN 1 READING, PA 19603 = HOURLY-REPORT FT. GEORGE G. MEADE BUILDING 2790 - NEW SH-1 PAGE 2- 4 AC-22 AC-22 AC-22 AC-23 AC-23 COOLING HEATING HEATING SUPPLY COOLING HEATING CAPACITY HEATING COOLING ELECTRIC ELECTRIC CAPACITY GAS CAPACITY GAS ELECTRIC BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR ΚW ---- (78) ---- (45) ---- (47) ----(49) ---- (70) ---- (78) ---- (45) ---- (47) MONTHLY SUMMARY (AUG) -189893. MN 1600. 0.000 0.000 0. -184410. 1600. 0.000 150965. 36743. MX 0. 13.161 2.183 0. 36743. 13.161 SM -88489952. 1266595. 3455.384 1017.278 60787696. -85935128. 1266595 3455.384 ΑV -118938. 1702. 4.644 1.367 81704. -115504. 1702. 4.644 MONTHLY SUMMARY (SEP) 0.000 -189893. 1600. 0.000 0. -184410. 1600. 0.000 153427. MX: 0. 29756. 12.540 2.183 0. 29756. 12.540 -82984568. -85641560. 2298.935 SM 1359830. 982.350 58609012. 1359830. 2298.935 ΑV -118947. 1889. 3.193 1.364 81401. -115256. 1889. 3.193 MONTHLY SUMMARY (OCT) 0.000 0.000 1600. MN -189893. ٥. -184410. 1600. 0.000 ΜX 0. 95265. 8.060 2.183 151507. 0. 95265. 8.060 -86488360. SM -90009096. 2679423. 1033.059 1023.827 62752536. 2679423. 1033.059 3601. ΑV -120980. 1.389 1.376 84345. -116248. 3601. MONTHLY SUMMARY (NOV) 0.000 0.000 MN -189893. 1600. 0. 0.000 133762. 160792. MX 0. -86211240. 5.335 2.183 0. -83168976. 133762. 5.835 3858681. 5359. 107.579 984.533 SM 64355528. 3858681. 107.679 ΑV -119738. 0.150 1.367 89383. 0.150 MONTHLY SUMMARY (DEC) 0.000 -189893. MN 1600. 0.000 -184410. 1600. 0.000 0. -91718120. 0. -88332464. МX 165363. 0.027 2.183 164197. 165363. 12110439. 0.032 1045.657 71032216. SM 12110439. 0.032 ΑV -123277. 16277. 0.000 1.405 95473. -118726. 16277. 0.000 YEARLY SUMMARY -189893. MN 0.000 -184410. 0. 1600. 0.000 0. -1055992832. 2.183 12074.173 209380. 209380. 13.161 171210. 0. 13.161 764449600. -1019972544. 64761216. 14901.045 SM 64761216. 14901.045 -120547. 7393. 1.701 1.378 87266. -116435. 7393. 1.701

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:17:26 SDL RUN 1

READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW

SH-1		RLY-REPORT	11, 02010			BUILDING 275	O - NEW		PAGE 1-
MDDHH	AC-23	AC-23	AC-23	AC-24	AC-24	AC-24	AC-24	AC-24	
	25	25	23	7.0 2.1	AC-24	AC-24	AC-24	AC-24	
	SUPPLY	COOLING	HEATING	HEATING	COOLING	SUPPLY	COOLING	HEATING	
	ELECTRIC	CAPACITY	CAPACITY	GAS	ELECTRIC	ELECTRIC	CAPACITY	CAPACITY	
	KM	BTU/HR	BTU/HR	BTU/HR	KW	KW	BTU/HR		
	(49)	(70)	(78)	(45)	(47)	(49)	(70)	(78)	
ONTHLY	SUMMARY (JAN)								
MN	0.000	0.	-184410.	1600.	0.000	0.000	0.	-191388	
MX	2.183	171210.	0.	225000.	0.014	2 266	177330	0	
SM	1043.474	72442536.	-88148048.	24048806.	0.025	1089.754	75490960	-92057504	
AV	1.403	97369.	-118479.	32324.	0.000	1.465	101466.	-123733.	
ONTHLY	SUMMARY (FEB)								
MN	0.000		-184410.	1600.	0.000	0.000	۸	-101200	
MX		171210.	0.		0.000	2 266	0. 177330.	-131388.	
SM			-79111960.	18066856	0.103				
AV	1.394		-117726.				99443.		
					2.000	2.407	JJ443.	-123869.	
ONTHLY MN	SUMMARY (MAR)	2	-184410.	1.500					
MEX								-191388.	
	2.183 1023.827	157388.	-86488360.		0.021	2.266 1064.332	163014.	0.	
av av	1.376		-86488360. -116248.		0.021	1064.332	69379456.	-89952240.	
AV	1.3/6	89903.	-116248.	12333.	0.000	1.431	93252.	-120904.	
	SUMMARY (APR)								
MN	0.000	0.	-184410. 0.	1600.	0.000	0.000	٥.	-191388.	
MIX	2.183						159948.	0.	
SM	982.350	524,37760.	-04704350.		60.561	1019.520	64514848.	-36124488:	
AV	1.364	86719.	-115256.	4059.	0.364	1.416			
ONTHLY	SUMMARY (MAY)								
MN	0.000	0.	-184410.	1600.	0.000			-191388.	
MX.		149344.	0.	89800.	9.518	2.266	154682.	0.	
SM	1036.925		-87594824.		1454.105	1082.957	65260496.		
λV	1.394	84103.	-117735.	4457.	1.954		87716.		
ONTHLY	SUMMARY (JUN)								
MN	0.000	0.	-184410.	1600.	0.000	0.000	0.	191388.	
MX	2.183	148172.	-184410. 0.	18643.	13.555	2.266	153279.	0.	
SM	982.350	57917340.	-82984568.	1210548.	2937.009	1019.520	60004680.	-86124488.	
AV	1.364	80441.	-115256.	1681.	4.079				
ONTHLY	SUMMARY (JUL)								
MN	0.000	0.	-184410.	1600.	0.000	0.000	n	-191388.	
MX	2.183			1600.	13.544		162588.		
SM	1015.095		-85750720.			1053.504			
AV	1.364	82050.	-115256.		4.599		84990.		
								223027.	

	DING, PA	19603	EZDOE - EL FT. GEORGE		DEVELOPMENT INC	DOE-2 BUILDING 27		96 9:17:20	
H-1		RLY-REPORT							PAGE 2-
	AC-23	AC-23	AC-23	AC-24	AC-24	AC-24	AC-24	AC-24	
	SUPPLY	COOLING	HEATING				COOLING	HEATING	
		CAPACITY		GAS	ELECTRIC		CAPACITY		
	KM	BTU/HR	BTU/HR	BTU/HR	KW	KW	BTU/HR	BTU/HR	
	(49)	(70)	(78)	(45)	(47)	(49)	(70)	(78)	
MONTHLY	SUMMARY (AUG)								
MN	0.000	0.	-184410.	1600.	0.000	0.000	0.	-191388	
MX	2.183	150965.	0.	43652.	0.000 13.618	2.266	156303.	0.	-
SM	1017.278	60787696.	-85935128.	1355687.	3488.185	1055.770	62973796.	-89186688	
AV								-119875	
MONTHLY	SUMMARY (SEP)								
MN	0.000	0.	-184410.	1600.	0.000	0.000	0.	-191388.	
MX	2.183	153427.	0.	38990.	12.974	2.266	158532.	0.	
SM	982.350	58609012.	0. -82984568.	1546757.	2286.524	1019.520	50707816.	-86124488	
ΑV			-115256.				84316.		
MCNTHLY	SUMMARY (OCT)								
MIN	0.000	0.	-184410.	1600.	0.000	0.000	0.	-191388	
MX	2.183	151507.	0.	112012.	8.088	2.266	0. 156923.	0.	
SM	1023.827	62752536.	-86488360.		953.120	1071.629	65564224.	-90526408.	
ΑV	1.375	84345.	-116248.	4865.	1.281	1.440			
MONTHLY	SUMMARY (NOV)								
WN	0.000	0.	-184 <b>4</b> 10. 0.	1600.	0.000	0.000	0.	-191388.	
МX	2.193	160792.	0.	157251.	5.572	2.266	165694.	0.	
SM	984.533	64355528.	-83168976.	6260087.	85.273	1028.583	67052440.	-36890040.	
ΑV	1.367	89383.	-115512.	3695.	0.113	1.429	93128.	-120681.	
MONTHLY	SUMMARY (DEC)								
MN	0.000	0.	-184410.	1600.	0.000	0.000	0.	-191388.	
MX		164197.	٥.	180416.	0.017	2 266	170066	0	
	1045.657	71032216.	-88332464.			1094.285	74201704.	-92440288.	
AV	1.405	95473.	-118726.	23877.	0.000	1.471	99733.	-124248.	
YEARLY	SUMMARY								
			-184410.~		0.000	0.000	0.	-191388.	
MX:	2.183	171210.	0.	225000.	13.618	2 266	177330	0	
SM			-1019972544.	90476904.	14686.584	12585.410	795208448.	-1063158912.	
AV	1.378	87266	-116435.	10328.	1.677	1 127	00777		

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC FT. GEORGE G. MEADE DOE-2.1D 6/12/1996 9:17:26 SDL RUN 1 READING, PA 19603 = HOURLY-REPORT BUILDING 2790 - NEW SH-1 PAGE 1- 6 MMDDHH AC\_FRONT AC\_FRONT AC\_FRONT AC\_FRONT AC\_FRONT SUPPLY HEATING COOLING COOLING HEATING GAS ELECTRIC ELECTRIC CAPACITY CAPACITY BTU/HR BTU/HR BTU/HR ---- (45) ---- (47) ---- (49) ---- (70) ---- (78) MONTHLY SUMMARY (JAN) MN 1600. 0.000 0.000 -379785. 510228. 346317. MX 0.000 4.496 0. 0.000 150072640. SM 104640936. 2198.446 -185714960. 0.000 2.955 201711. -249617. MONTHLY SUMMARY (FEB). 0.000 4.496 0.000 MN 1600. 0. -379785 511097. 0.000 346317. ٥. SM 87014192 0.000 2014.118 134754608. -170143776. 129485. 2.997 200528. ΑV 0.000 -253190. MONTHLY SUMMARY (MAR) 0.000 MN 1600. 456563. 0.000 0. -379785. 319870. MX 0.037 4.496 0. SM 58908284. 0.067 2135.505 136893488. -180397984. A٧ 79178. 0.000 2.870 -242470. MONTHLY SUMMARY (APR) 1600. 0.000 0.000 -379785. 312371. MX 366213. 0.044 4.496 0.084 -170903344. 2023.110 SM 22665174. 124554704. ΑV 31479. 2.810 172993. -237366. MONTHLY SUMMARY (MAY) 1600. 272342. 0.000 0.000 ٥. MN -379785. 16.338 302088. 4.496 0. SM 17417818. 1615.261 2265.883 134985248. -191411776. ΑV 23411. 2.171 3.046 181432. -257274. MONTHLY SUMMARY (JUN) MN 1600. 0.000 0.000 0. -379785. 297325. 96079. 26.557 MX 4.496 0. 2447781. 4471.783 2041.093 119141760. -172422480. AV 3400. 6.211 2.835 165475. -239476. MONTHLY SUMMARY (JUL) MN 1600. 0 000 0.000 315543. 26.554 5592.173 17047. 4.496 2090.547 0. -176600128. MX 1205847. SM 124441592.

AV

1621.

7.516

2.810

167260.

EZDOE - ELITE SOFTWARE DEVELOPMENT INC ENTECH ENGINEERING DOE-2.1D 6/12/1996 9:17:26 SDL RUN 1 READING, PA 19603 = HOURLY-REPORT FT. GEORGE G. MEADE BUILDING 2790 - NEW SH-1 PAGE 2- 6 AC\_FRONT AC\_FRONT AC\_FRONT AC\_FRONT AC\_FRONT HEATING COOLING SUPPLY COOLING HEATING GAS ELECTRIC ELECTRIC CAPACITY CAPACITY BTU/HR KW KW BTU/HR BTU/HR ---- (45) ---- (47) ----(49) ----(70) ----(78) MONTHLY SUMMARY (AUG) 0.000 1600. 0.000 0. -379785. 123621. MX 26.328 4.496 305176. 0. SM 2571889. 5470.581 2104.034 124617816. -177739472. ΑV 3457. 7.353 2.828 167497. -238897. MONTHLY SUMMARY (SEP) 0.000 1600. 144546. 0.000 MN ٥. -379785. 23.770 306481. ΜX 4.496 0. SM 6318722. 3069.042 2104.034 123921768. -177739456. ΑV 8776. 4.263 2.922 172114. -246860. MONTHLY SUMMARY (OCT) 1600. MN 0.000 0.000 ٥. -379785. 306464. MX 347263. 12.073 4.496 ٥. 2225.421 SM 21426196. 658.032 -187993696. 134198952. 0.884 180375. -252680 MONTHLY SUMMARY (NOV) 1600. 457780. MN 0.000 ٥. 0.000 -379785. 312371. MX 0.017 4.496 ٥. -175080944. SM 45126656. 0.053 2072.564 132452408. 0.000 ΑV 62676. 2.879 183962. -243168. MONTHLY SUMMARY (DEC) 1600. 457328. 0.000 0.000 MN 0. -379785. MX 0.000 4.496 332132. 0. 147398560. -186474528. 332132. SM 91304520. 0.000 2207.438 2.967 ΑV 122721. 0.000 198116. -250638. YEARLY SUMMARY 1600. 511097. -379785. MN 0.000 0.000 0.

346317.

181214.

1587433344. -2152622848.

0.

4.496

2.909

25482.197

ΜX

SM

ΑV

461048064.

52631.

26.828

2.383

20877.078

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:17:26 SDL RUN 1 READING, 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW = HOURLY-REPORT SH-2 PAGE 1- 1 AC\_3\_8 MMDDHH AC\_3\_8 AC\_3\_8 AC\_3\_8 AC 3 8 AC-1 2 AC-1\_2 AC-1\_2 HEATING COOLING SUPPLY COOLING HEATING HEATING COOLING SUPPLY ELECTRIC ELECTRIC CAPACITY GAS CAPACITY GAS ELECTRIC ELECTRIC BTU/HR KW KW BTU/HR BTU/HR BTU/HR KW кw ---- (45) ----(47) --- (49) ----(70) ---- (78) ---- (45) ---- (49) MONTHLY SUMMARY (JAN) 1600. 0.000 0.000 0. -675339. 1600. 0.000 0.000 540233. ΜX 832848. 0.000 6.171 0. 737233. 0.000 0:000 3030.158 -331591328. 235102800. 153633472. 141700576 SM 0.000 3202.886 ΑV 206497. 0.000 4.073 315998. -445687. 190458. 0.000 4.305 MONTHLY SUMMARY (FER) 0.000 0.000 0. 1600. -675339. MN 1600. 0.000 0.000 540233. ΜX 0.022 6.171 0. 726443. 0.000 6.590 -302551744. SM 122273624. 0.022 2764.788 210208848. 112266488. 0.000 2919.503 ΑV 181955. 0.000 4.114 312811. -450226. 167063. 0.000 MONTHLY SUMMARY (MAR) MN 1600. 0.000 0.000 0. -675339. 1500. 0.000 498977. 623133. 0.026 6.171 MX 0. 569586. 0.055 6.590 -321461216. 0.026 2937.587 SM 80023848. 213988032. 73217440. 0.066 3110.622 ΔV 107559. 0.000 3.948 287618. -432072. 0.000 4.181 MONTHLY SUMMARY (APR) 1600. 0.000 0.000 -675339. 1500. 0.000 0.000 ΜX 521193. 0.042 6.171 2777.131 487280. 0. -303902400. 502564. 0.008 6.590 0.042 194114048. SM 30439260. 27199544. 0.003 2965.635 ΑV 42277. -422087. 0.000 4.119 MONTHLY SUMMARY (MAY) 1600. 0.000 MN -675339. 1600. 0.000 0.000 мх 425613. 26.719 6.171 471238. ٥. 24.385 369383. 6.590 -332941984. 2745.316 SM 24479270. 3042.501 205842432. 21963616. 2583.402 3301.740 ΑV 276670. 32902. 3.690 4.089 -447503. 29521. 3.472 4.438 MONTHLY SUMMARY (JUN) 0.000 0.000 MN 1600. 0. -675339. 1600. 0.000 0.000 150275. 42.747 6.171 466078. 0. 145486. 38.285 6.590 -305253088. SM 2992877. 7600.834 2789 473 186456896. 2581922. 6848.656 3586. ΑV 4157. 10.557 3.874 258968. -423963. 9.512 4.146 MONTHLY SUMMARY (JUL) 1600. 0.000 0.000 0. -675339. MN 1500. 0.000 0.000 494582. мх 41.213 6.171 0. 19336. 38.426 6.590 SM 1311290. 9460.715 2869.702 196751008. -314032480. 1208136. 8412.823 3064.490 1762. 1624 ΑV 12.716 3.857 264450. -422087. 11.308

REA	DING, PA = HOU	19603	FT. GEORG	E G. MEADE	DEVELOPMENT INC	BUILDING 27	90 - NEW		
								PAGE 2- 1	
	AC_3_8	AC_3_8	AC_3_8	AC_3_8	AC_3_8	AC-1_2	AC-1_2	AC-1_2	
		COOLING		COOLING	HEATING	HEATING	COOLING	SUPPLY	
	GAS	ELECTRIC	ELECTRIC	CAPACITY	CAPACITY	GAS	ELECTRIC	ELECTRIC	
	BTU/HR	KW.	KW	BTU/HR	BTU/HR		KM		
	(45)	(47)	(49)	(70)	(78)	(45)	(47)	(49)	
MONTHLY	SUMMARY (AUG)						•		
MIN	1600.	0.000	0.000	0.	-675339.	1600	0.000	0.000	
MX	194456.	42.187	6.171	474890.	-675339. 0.	169238	38 406	6.590	
SM	2849411.	9379.327	2882.044	196589648	-315383168	2914916	8334 772	3077 670	
ΑV	3830.	12.607	3.874	264233.	-315383168. -423902.	3918.	11.203	4.137	
								****	
MONTHLY MN	SUMMARY (SEP)			_					
	1600. 257325.	0.000	0.000	0.	-675339. 0.	1600.	0.000	0.000	
inx.	25/325.	39.691	6.171	481120.	0.	210221.	35.489	6.590	
AV	11368.	7.371	2838.844	191056272.	-310655776.				
AV	11368.	7.3.71	3.943	265356.	-431466.	10571.	6.664	4.247	
MONTHLY	SUMMARY (OCT)								
MN	1600.	0.000	0.000	0.	-675339.	1600.	0.000	0.000	
MX	475471.	21.313	6.171	478065.	0.	490815.	17.654	6.590	
SM	28540580.	1269.425	3011.644	205999360.	0. -329565248.	25990076.	1084.975	3249.018	
AV	38361.	1.706	4.048	276881.	-442964.	34933.	1.458	4.367	
MONTHLY	SUMMARY (NOV)								
MN	1600.	0.000	0.000	0.	-675339.	1600.	0.000	0.000	
MX	573722.	3.113	6.171	487280.	٥.	523263.	0.085	6.590	
	62027612.	12.120	2851.187	206921776.	0. -312006432.	58059788.	0.127	3031.538	
ΑV	86149.	0.017	3.960	287391.	-433342.	80639.	0.000	4.210	
	SUMMARY (DEC)								
MIN	1500.	0.000	0.000	0.	-675339.	1600.	0.000	0.000	
MX		0.000	6.171	518105.	0.	671273.	0.000		
	130335024.	0.000	3030.158	229909312.	-331591296.	121289976.	0.000	3216.067	
AV	175191.	0.000	4.073	309018.	-445687.	163024.	0.000		
YEARLY	SUMMARY								
	1600.	0.000	0.000-	0.	-675339.	1600	0.000	0.000	
MX	332348.	42.747	6.171	540233	0	77777	20 126	6 500	
SM	647091328.	35774.699	34825.219	2472940544.	-3810935808.	596003328.	32062 867	37187 473	
AV	73369	4 084	3 975	202200	-435038.	C0037	3.550	4.245	

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	ENTECH E	NGINEERING		EZDOE - EI	LITE SOFTWARE I	EVELOPMENT INC	DOE-	2.1D 6/12/1996	9:17:26 SDL RUN
REA	ADING,	PA 19 HOURLY-REPO	603	FT. GEORGE	G. MEADE		BUILDING 2	790 - NEW	3111111 322 NON
SH-2	=	HOURLY-REPO	RT						PAGE 1-
MMDDHH	AC-1_2	AC-1_2	AC.	_EXP	AC_EXP	AC_EXP	AC_EXP	AC_EXP	
	COOLING	HEATIN	IG HE	ATING	COOLING	SUPPLY	COOLING	HEATING	
	CAPACITY	CAPACI	TY GA:	s	ELECTRIC	ELECTRIC	Capacity	CAPACITY	
	BTU/HR	BTU/HF	. BT	U/HR	KM	SUPPLY ELECTRIC KW	BTU/HR	BTU/HR	
						(49)			
MONTHLY	SUMMARY (	Jan)							
MN		0556	719.	1600.	0.000	0.000	n	-521232	
MX	50306	6.	0.	702198.	0.000	6 171	470959	-321332.	
SM	21658171	2270565	440. 178	3185584.	0.000	3030 158	204950944	-255074200	
AV	29110	4363	663.	239497.	0.000	0.000 6.171 3030.158 4.073	275472.	-344051.	
MONTHE	CITMMADY (	ומים							
MN		0 -556	719	1600	0.000	0.000 6.171 2777.131 4.133		524333	
MY	50306	£ -550		707114	0.000	6.000		-521332.	
SM	193305	0245626	572 75	1084774	0.000	0.1/1	4/0959.	0.	
211	19330720	0246626	220. 13.	774224.	0.000	2///.131	184122000.	-234599552.	
AV	28/66	0367	004.	224828.	0.000	4.133	273991.	-349106.	
MONTHLY	SUMMARY (	MAR)							
MN		o556	719.	1600.	0.000	0.000	0.	-521332.	
MX	46245	5.	0.	683642.	0.000.	6.171	434992.	0.	
SM	19748289	6262771	360. 116	119720.	0.000	2949.930	187375808.	-249196864.	
AV	26543	4353	187.	156075.	0.000	0.000 6.171 2949.930 3.965	251349.	-334942.	
MONTHLY	SUMMARY (	APR)							
MN		J. +556	719.	1500.	0.000	0.000	0.	-521332	
MX	45375	6.	٥.	578304.	0.033	6.171	424795	0	
SM	18103548	8250523	552. 57	130036.	0.062	2789.474	1697+9696	-235642224	
AV	25143	8347	949.	79347.	0.000	0.000 6.171 2789.474 3.874	235763.	-327281.	
MONTHLY	SUMMARY (	MAY)							
MN		o556	719.	1600.	0.000	0.000	n	-521333	
MX	43881	3.	0.	417429.	15.874	6 171	473811	-341332.	
SM	19459464	0278916	256. 43	972004	1128 736	3376 385	196275392	-320000376	
AV	26155	2374	887.	59102.	1.517	0.000 6.171 3326.385 4.471	254517.	-377686.	
MONTHLY	SUMMARY (	JUN)							
MN	(	2556	719.	1600.	0.000	0.000	•	. 621222	
MX	43193	5. 550	0	175803	33 047	6.000	4330.00	-521332.	
SM	17168571	2252193	712. 8	290745	4374 082	0.000 6.171 2894.387	162773000	0.	
AV	23845	2350	269.	11515.	6.075	4.020	233651.	-244504895. -339590.	
MONTHEY	SUMMARY (	T(T.)							
MN		, 0 -556	719	1600	0.000	0.000	^	ca	
MX	45841	5. 330		22800	36.000	6.000		-521332.	
SM	17958843	 ? -?5897#	٠. ١٦٤ ١	982693	5754 957	0.000 6.171 2869.702	+35557.	0.	
217	2/220043	2150074 2347	930. 1	2666	7 77	3.857	_22/5/920.	-242419536.	
	27233.	-347	,,,,	2003.	7.735	/ ده. د	225438.	-325833.	

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:17:26 SDL RUN 1 EZDOE - ELL. FT. GEORGE G. MEADE READING, PA 19603 = HOURLY-REPORT BUILDING 2790 - NEW PAGE 2- 2 AC-1\_2 AC-1\_2 AC\_EXP AC\_EXP AC\_EXP AC\_EXP AC\_EXP COOLING HEATING HEATING COOLING SUPPLY COOLING HEATING KW CAPACITY CAPACITY GAS ELECTRIC ELECTRIC CAPACITY CAPACITY gas BTU/HR BTU/HR BTU/HR KW BTU/HR --- (70) ----(78) ---- (45) ---- (47) ---(49) ----(70) ----(78) MONTHLY SUMMARY (AUG) 442854. 0.000 0. -556719. 1600. 0.000 MN 0. -521332. 34.079 193980. 412019. ΜX 0. 6.171 0. SM 179415840. -259987776. 5437971. 5609.399 2925.244 172573360. -247111536. 241150. -349446. 7309. ΑV 7.540 3.932 231953. -332139. MONTHLY SUMMARY (SEP) 0.000 6.171 MN 0. -556719. 1600. 0.000 ο. -521332. 445032. 246051. 414408. MX 0. 26.776 -258317632. -257016880. 177876240. 3042.500 SM 17260532. 2803.795 178090128. ΑV 247050. -358775. 23973. 3.894 4.225 247347. -356968. MONTHLY SUMMARY (OCT) 0. -556719. 445175. 0. MN 1600. 0.000 0.000 0. -521332. МX 563664. 11.061 6.171 416762. 0. -274462464. -267443504. SM 194015360. 50109640. 369.307 3165.929 189011104. -368901. ΑV 260773. 67352. 0 496 4.255 254047. -359467. MONTHLY SUMMARY (NOV) 0.000 MN ٥. -556719. 1600. 0.000 453756. 639458. MX 0. 0.000 6.171 2863.530 424795. 0. -256090752. 88326768. 0.000 SM 192081440. -241898208. 180931040. ΑV 266780. -355682. 122676. 0.000 3.977 251293. -335970. MONTHLY SUMMARY (DEC) 0.000 0. -556719. MN 1600. 0.000 0. -521332. 482461. 0. -271678880. 676279. MX 0.000 6.171 451668. 212702576. 157974160. -256495520. SM 0.000 3036.329 200869760. 285891. -365160. 0.000 4.081 -344752. 269986. YEARLY SUMMARY 0.000 -556719. 1600. 0.000 ο. -521332. 503066. 0. 707114. 36.061 5.171 ÷70959. 0. 2290367488. -3141008896. SM 875874112. 20040.232 35670.599 2202736128. -3013301248. 261457. -358563. 99986. 4.072 2.288 251454. -343984.

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:17:26 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW
REPORT- PV-A EQUIPMENT SIZES WEATHER FILE- BALTIMORE, MD

NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER
EQUIPMENT SIZE INSTD (MBTU/H) AVAIL (MBTU/H) AVAI

HW-BOILER 0.000 1 1

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:17:26 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW
REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY WEATHER FILE- BALTIMORE, MD

SITE ENERGY SOURCE 2 3 8 9 10 11 12 13 14 TOTAL TOTAL TOTAL WASTED FUEL. ELEC FUEL ELEC FUEL TOTAL TOTAL HEAT COOLING ELECTR RCVRED RCVRABL INPUT INPUT INPUT INPUT INPUT FUEL SITE MONTH LOAD LOAD ENERGY ENERGY COOLING COOLING HEATING HEATING ELECT INPUT ENERGY ENERGY ---------JAN 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 726.0 1064.2 1741.4 99.0E 0.0E 0.0E FEB 0.0 0.0 301.3 0.0 0.0 0.0 0.0 0.0 0.0 584.4 885.7 1489.2 88.2E 0.0E 0.0E MAR 0.0 0.0 345.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 380.9 726.6 \* 1419.0 101.2E 0.0E 0.0E APR 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 154.3 490.1 \* 1162.9 98.4E 0.0E 0.0E MAY 0.0 0.0 399.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 128.3 528.2 1328.3 117.0E 0.0E 0.0E JUN 492.5 0.0 0.0 0.0 0.0 0.0 0 0 0.0 0.0 0.0 25.7 1504.7 144.2E 0.0E 0.0E 0.0 JUL. 0.0 518.2 0.0 0.0 0.0 0.0 0.0 0.0 15.2 533.4 1571.3 151.8E 0.0E 0.02 537 3 AUG 0.0 0.0 0.0 0.0 0.0 0.0 0.0 24.0 561.4 1637.6 157.4E 0.0E 0.08 SEP 0.0 0.0 441.9 0.0 0.0 0.0 0.0 50.6 492.4 1377.5 129.4E 0.0E 0.0E OCT 0.0 ₹.0 368.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 517.2 1255.2 148.9 107.9E 0.0E 0.0E NOV 0.0 0.0 317.9 0.0 0.0 0.0 0.0 0.0 606.1 \* 0.0 288.2 1243.0 93.1E 0.0E 0.0E DEC 0.0 0.0 338.3 0.0 0.0 0.0 0.0 0.0 0.0 604.3 943.1 \* 1620.6 99.1E 0.0E 0.0E 0.0 0.0 4734.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 7866.7 \* 17350.6 3131.3 1386.7E 0.0E 0.02

NOTE-- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES FOLLOWED BY E ARE IN MWH (THOUSANDS OF KWH)

DEC

TOTAL (MBTU)
PEAK (KBTU)
DY/HR

ONE YEAR USE/PEAK

338.263 878.187 31/ 9

4734.883 1720.256

0.000 0.000 31/24

0.000

604.834 3753.023 12/ 7

3131.780 4313.148

IN 1

ENTECH ENGIN READING, PA REPORT- PS-B MONTHLY	19603	EZDOE - ELITE FT. GEORGE G.	SOFTWARE DEVELOR	PMENT INC BUILD	ING 2790 - N	EM	9:17:26	
							and the contract of the contra	
МО	UTILITY-	ELECTRICITY	FUEL-OIL	NATURAL-GAS				
	TOTAL (MBTU)	338.113	0.000	726.047				
JAN	PEAK (KBTU)	878.187	0.000	4313.148				
	DY/HR		31/24	31/ 7				
	moment (Manager)	201 201	0.000	504 444				
EED.	TOTAL (MBTU)	301.281 878.288	0.000	584.444 4110.207				
FEB	DY/HR							
	DI/AR	10/ 9	28/24	14/ 7				
	TOTAL (MBTU)	345.703	0.000	380.894				
MAR	PEAK (KBTU)	882.525		3713.113				
	DY/HR	26/17						
		335.879						
APR		1002.506		2676.223				
	DY/HR	19/19	30/1	9/ 7				
	TOTAL (MBTU)	399.434	0.000	128.767				
MAY	PEAK (KBTU)	1420.594	0.000	1985.947				
	DY/HR	21/17	31/ 1	10/ 7				
			-					
	TOTAL (MBTU)	492.481 1714.944	0.000	25.731				
אשד								
	DY/HR	28/17	30/1	22/ 7				
	TOTAL (MBTU)	518.159	0.000	15.231				
JUL	PEAK (KBTU)	518.159 1719.635	0.000	15.231 182.427				
	. DY/HR		31/ 1					
	TOTAL (MBTU)	537.338 1720.256	0.000					
AUG				778.330				
	DY/HR	18/17	31/ 1	22/ 5				
	TOTAL (MBTU)	441.874	0.000	50.550				
SEP	PEAK (KBTU)	1649.336	0.000	1013.475				
	DY/HR			30/ 7				
	TOTAL (METT)	769 126	0.000	140 700				
200	TOTAT (MDIA)	368.426						
oer	PEAK (KBTU)	1304.860	0.000 31/24	2655.984				
	DY/HR	13/1/	31/24	24/ 7				
	TOTAL (MBTU)	317.933	0.000	288.212				
NOV	PEAK (KBTU)	317.933 1046.613	0.000	288.212 3374.264				
			30/24					
		-,		,				

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:17:26 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW
REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

ELECTRICAL LOADS METU SUPPLIED PCT OF TOTAL LOAD

ELECTRICITY 4734.9 100.0

LOAD SATISFIED 4734.9 100.0

TOTAL LOAD ON PLANT 4734.9

SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
ELECTRICAL LOADS	4734.9	4734.9	0.000	0.000	0

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:17:26 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW
REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER FILE- BALTIMORE, MD

	AVG	MAX	MON					
EQUIPMENT	OPER	LOAD	DAY	SIZE OPER				
	RATIO	(MBTU)	HR	(MBTU) HRS				
HW-BOILER	0 000	0.000	000	0 000 0				

RE EPORT-	EADING	3,		P	INE A ENT		1	.960 CYC		со		FT.				MEADE	DEVELOPMENT	INC	DOE-2.1D 6/12/1996 9:17:26 PDL RU BUILDING 2790 - NEW WEATHER FILE- BALTIMORE, MD
. Q t	<b>.</b> T	D	M	-	N	т			T	0	т	A							
W-BOII	ÆR									0	. 1								
		NON	IN	L.	SIZ	E (1	MBT	U)							0.	000			
		NUN	ŒEF	l I	NST	ALL	ED									1			
		FIF	RST		ÇO:	ST	(K\$	)					C	. 0		0.0			
		ANN	IAU		ÇO:	ST	(K\$	)					С	.1		0.1			
		CYC	LIC	AL	CO	ST	(K\$	)					0	. 0		0.0			
			1	OT.	AL-		(K\$	)								0.1			
								-											
Ξ	QUIP	1ENT	7	OT.	AL					0	. 1								

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:17:26 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW
REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE WEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE MBTU -	ELECTRICITY	FUEL-OIL	NATURAL-GAS
CATEGORY OF USE			•
SPACE HEAT	0.00	0.00	3131.78
SPACE COOL	775.91	0.00	0.00
HVAC AUX	784.31	0.00	3.00
DOM HOT WTR	0.00	0.00	0.00
AUX SOLAR	0.00	0.00	0.00
LIGHTS	2778.61	0.00	0.00
VERT TRANS	0.00	0.00	3.00
MISC EQUIP	396.18	0.00	0.00
TOTAL	4735.01	0.00	3131.75

TOTAL SITE ENERGY 7866.66 MBTU 100.3 KBTU/SQFT-YR GROSS-AREA 100.3 KBTU/SQFT-YR NET-AREA TOTAL SOURCE ENERGY 17350.65 MBTU 221.2 KBTU/SQFT-YR GROSS-AREA 221.2 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 1.3
PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.0

MOTE ELECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPERTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

REA	ENTECH ENGIN ADING, PA	EERING 19603 RLY-REPORT	EZDOE - E FT. GEORG	LITE SOFTWARE E G. MEADE	DEVELOPMENT INC	DOE-2 BUILDING 27	.1D 6/12/1996 90 - NEW	9:34:28 SDL RUN :
								PAGE 1- 1
MMDDHH	AC-17	AC-17	AC-17	AC-17	AC-17	AC-18	AC-18	AC-18
	COOLING ELECTRIC KW	ELECTRIC KW	GAS BTU/HR	CAPACITY BTU/HR	BTU/HR	GAS BTU/HR	KW	SUPPLY ELECTRIC KW
	(47)	(49)	(45)	(70)	(78)	(45)	(47)	(49)
MONTHLY	SUMMARY (JAN)							
MN	0.000	0.000	1600.	0.	-182915.	1600.		
MX	0.048	2.165	214430	160000	•	10075	0.000	0.000
SM	0.078	1024.187	16621206	71152744		190751.	0.033	
AV	0.000	1.377	22340.	95635.	-00518/44.	9901319.		
	0.000	2.3//	44340.	75635.	-116289.	13308.	0.000	1.336
MONTHLY	SUMMARY (FEB)							
MN	0.000	0.000	1600.	0	-182915.	1600	0.000	
MX	0.066	2.165	198835	160000		1600.	0.000	
SM	0.077	922.418	13001659	62689856	-77921744.	180392.		
AV	0.000	1.373	19348.	02007030.	-115955.	8429851.		893.071
	******	1.373	19340.	73200.	-115955.	12544.	0.000	1.329
	SUMMARY (MAR)							
MM:	0.000	0.000	1600.	0.	-182915.	1600	0.000	0.000
MIX	0.037	2.165	164339.	156182	0.	136881.	1,438	
SM	0.037	1011.195	5917055.	66060644.	-85421248.	3140055	8.961	
ΑV	0.000	1.359	7953.	88791.	-114814.	4233.		
MONTHI V	SUMMARY (APR)							1.510
	0.300	0.000						
MX	4.511	0.000	1600.	0.	-182915.	1600.	0.000	0.300
SM		2.165	96747.	153244.	ο.	53188.	5.370	2.106
	103.966	974.385	1969425.	62026636.	-182915. 0. -82311696.	1265497.	243.514	949.941
AV	0.144	1.353	2735.	86148.	-114322.	1758.	0.338	1.319
MONTHLY	SUMMARY (MAY)							
MIN	0.000	0.000	1600.	0	-182915. 0.	1600	2 222	
MX	9.323	2.165	73180	148199		1500.	0.000	0.000
SM	1519.921	1030.683	2165031	62307404	-87067472.	31620.	9.337	2.106
AV	2.343	1.385	2910.	83747.	-117026.	2235.	2.200	989.961 1.331
MUNITULE A	SUMMARY (JUN)						2.200	1.331
MN								
MX	0.000	0.000	1600.	0.	-182915.	1600.	0.000	0.000
M.X. SM	13.003	2.165	9381.	148995.	٥.	1500.	12.680	2.106
	2905.321	974.385	1166680.	57482560.	0. -82311696.	1152000.	2942.385	947.835
AV	4.035	1.353	1620.	79837.	-114322.	1600.	4.087	1.316
MONTHLY	SUMMARY (JUL)							
	0.000		1600.	0	-122015			
MX	13.013	2.165	1600	166006	-132915.	1600.		0.000
SM	3339.793	1006 364	1190400	£30005.	0.	1600.	12.697	2.106
AV	4.489	1.353	1600.	00419492.	-85055416.	1190400.	3338.120	979.429
	4.403	1.333	1000.	81209.	-114322.	1600.		1.316

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:34:28 SDL RUN 1 READING, PA 15000 = HOURLY-REPORT PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW SH-1 ------AC-17 AC-17 AC-18 AC-18 AC-18 COOLING SUPPLY HEATING COOLING HEATING HEATING COOLING SUPPLY ELECTRIC ELECTRIC GAS CAPACITY CAPACITY GAS ELECTRIC ELECTRIC BTU/HR BTU/HR BTU/HR BTU/HR KW KW ---- (47) ----(49) ---- (45) ~~~ (70) ---- (78) ---- (45) ---- (47) ----(49) MONTHLY SUMMARY (AUG) 0.000 13.056 0.000 1600. 0. -182915. 1600. 0.000 0.000 MX 2.165 15066. 151042. 0. 1600. 2.106 -85055416. 60244364. SM 3414.456 1006.864 1203866. 1190400 3429.375 979.429 ΑV 4.589 1.353 1618. 80974. -114322. 1600. 4.609 1.316 MONTHLY SUMMARY (SEP) MN 0.000 12.424 0.000 1600. ٥. -182915. 1600. 0.000 0.000 ΜX 2.165 33045. 152929. 0. 21101. 12.137 2.106 -82311696. SM 2266.375 974.385 1332561. 58234628. 1217557. 947.835 ΑV 3.148 1.353 1851. 80881. -114322. 1691. 3.252 MONTHLY SUMMARY (OCT) MN 0.000 0.000 3.600 ٥. -182915. 1600. 0.000 ΜX 7.861 76522. 150347. 2.165 ٥. 53898. 8.093 2.106 -86152904. SM 1019.856 2409018. 62628180. 1769228. 1135.594 979.429 ΑV 1.336 1.371 3238. 84178. -115797. 1.526 1.316 MONTHLY SUMMARY (NOV) 0.000 MN 0.000 1600. 1600. 0.000 0.000 159490. MX 5.730 2.165 143584. 0. -82494608. 102645. 6.180 2.106 976.550 SM 103.162 3963308. 63839188. 1965611. 147.553 952.047 88666. 0.143 -114576. 2730. 0.205 1.322 MONTHLY SUMMARY (DEC) MN 0.000 0.000 1600. -182915. 1600. 0.000 0.000 ΜX 0.013 2.165 166804. 162939. 138313. 0. 0.017 2.106 -86335832. SM 0.028 1022.021 12013590. 69400344. 5752729.

ΑV

MN

SM

ΑV

YEARLY SUMMARY

0.000

0.000 13.056

1.672

14647.227

1.374

0.000

2.165

1.363

11943.793

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86357.

756485952.

٥.

-116043.

-182915.

-115178.

-1008958400.

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0.000

12.736

15224.506

0.000

2.106

11572.011

EZDOE - ELITE SOFTWARE DEVELOPMENT INC 9:34:28 SDL RUN 1 PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW SH-1 -----MMDDHH AC-18 AC-19 AC-19 AC-19 AC-19 AC-19 AC-21 HEATING COOLING HEATING COOLING SUPPLY COOLING HEATING HEATING CAPACITY CAPACITY GAS ELECTRIC ELECTRIC CAPACITY CAPACITY GAS BTU/HR BTU/HR BTU/HR KW BTU/HR BTTI/HR BTU/HR ---- (73) ---- (78) ---- (45) ---- (47) ----(49) ----(70) ---- (78) ---- (45) MONTHLY SUMMARY (JAN) 0.000 165524. MN 0. -177931. 1600. 0.000 -177931. 1600. 165524. MX 0. 190751. 0.033 2.106 0. 215031. -83983344. -83983344. SM 69180232. 9901319. 0.033 994.173 69180232. 16159035. 92984. -112881. 13308. 0.000 1.336 92984. -112881. 21719. MONTHLY SUMMARY (FEB) MN -177931. 1600. 0.000 ٥. 0.000 ٥. 1600. -177931. 180392. ΜX 165524. 0. 0.049 2.106 165524. 0. 198659. -75442680. SM 60815464 8429851. 0.061 893.071 60815464. -75442680. 12688852. 90499. AV -112266. 12544. 0.000 1.329 30499. -112266. MONTHLY SUMMARY (MAR) MN 0. -177931. 1600 0.00 0.000 -177931. 152162. MX 136881. 152152. 0. 1.438 2,106 0. 162207. -82737840. -82737840. 64145732. 8.961 979.429 3149055. 64145732. 5657768 ΑV 86217. -111207. 4233. 0.012 1.315 86217. 7605. MONTHLY SUMMARY (APR) MN 0. -177931. 1600. 0.000 0.000 1600. 149299. MX 0. 53188. 5.370 2.106 949.941 149299. ٥. 80246808. 243.514 SM 60684116. 1265497. -80246808. 60534116. 1927355. ΑV 84283. -111454. 1758. 0.338 1.319 34283. -111454. 2677. MONTHLY SUMMARY (MAY) -177931. 1600. 0.000 -177931. 1600. 144384. 0. -83627488. 9.337 1637.060 144384. MX 61620. 2.106 Э. 73395. SM 59837944. 1663120. -83627488. 989.961 59837944. 2139116. 30427. -112403. 2235. 2.200 80427. 1.331 -112403. 2875. MONTHLY SUMMARY (JUN) MN -177931. 1600. 0.000 ٥. 0.000 Э. -177931. 1600. 145453. 1600. 145453. MX 0. 12.680 2.106 ٥. 9218. -80068880 SM 55995808 1152000. 2942.885 947.835 55995808. -80068880. 1166268. 77772. ΑV -111207. 1600. 4.087 1.316 -111207. MONTHLY SUMMARY (JUL) -177931. 1600. MN 153000. 0.000 -177931. 1600. ο. 0.000 0. 1600. 12.697 2.106 153000. 0. 1600.

DOE-2.1D 6/12/1996

ENTECH ENGINEERING

SM

ΑV

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1600.

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4.487

979.429

1.316

58834700.

79079.

-82737840.

-111207.

1190400.

			FT. GEORGE	G. MEADE	AVELOPMENT INC	BUILDING 27	90 - NEW	9:34:28 SDL R
I-1	= HOI	URLY-REPORT						PAGE 2
	AC-18	AC-18	AC-19	AC-19	AC-19	λC-19	AC-19	AC-21
	COOLING	HEATING	HEATING	COOLING	SUPPLY	COOLING	HEATING	HEATING
	CAPACITY	CAPACITY	GAS	ELECTRIC	ELECTRIC	CAPACITY	CAPACITY	GAS
	BTU/HR	BTU/HR	BTU/HR	KW	KW	BTU/HR	BTU/HR	BTU/HR
	(70)	(78)	(45)	(47)	(49)	(70)	(78)	(45)
ONTHLY	SUMMARY (AUG)	)		-				
MN	0.	-177931.	1600.	0.000	0.000	۵.	-177931.	1600
MX	147783	0	1600	12 776	2 106	147202	•	
SM	58669200.	-82737840.	1190400.	3429.375	979.429	58669200	-82737840.	1203452.
AV		-111207.		4.609	1.316	78856.	-111207.	1618.
MONTHLY	SUMMARY (SEP)	)						
MN		-177931.	1600.	0.000	0.000	0.	-177931.	1600.
MIX	149411.			12.137	7 106	149411.	0.	
SM		-80068880.					-80068880.	
AV		-111207.						1808.
MONTHLY	SUMMARY (OCT)	<b>;</b>						
MN		-177931.	1600.	0.000	0.000		-177931.	1600
MX		0.	53898.	8.093	2 106	116176	-177931.	71457.
SM					979.429		-82737840.	
AV		-111207.						
MONTHLY	SUMMARY (NOV)							
MIN	0.	-177931.	1600.	0.000	0.000	0	-177931.	1600
MX	154033.	0.	102645.	6.180	2.106	154083.	n	140874
SM	62453864.	-80424744.	1965611.	147.553	952.047	62453864	-80424744.	3748036.
AV		-111701.					-111701.	
MONTHLY	SUMMARY (DEC)							
MN	٥.	-177931.	1600.	0.000	3,000	o	-177931.	1600.
MY	159744	0	120212	0.017	2 106	162744	^	165701
SM	66582036.	-82737840.	6752729.	0.017	979.429	66582036	-82737840.	11576574.
AV		-111207.			1.316	39492.	-111207.	15560.
	SUMMARY							
MIN	S.	-177931.	1600.	0.000	0.000	٥.	-177931.	1600.
	165524.			12.736		165524	0.	215031.
SM	734158208.	-977552064.	39646764.	15224.506			-977552064.	61024112
AV		-111593.			1.321			6966.

DOE-2.1D 6/12/1996 9:34:28 SDL RUN 1 READING, PA 19603 = HOURLY-REPORT FT. GEORGE G. MEADE BUILDING 2790 - NEW SH-1 PAGE 1- 3 AC-21 AC-25 AC-25 AC-25 AC-25 SUPPLY COOLING COOLING HEATING HEATING COOLING SUPPLY COOLING ELECTRIC ELECTRIC CAPACITY CAPACITY GAS ELECTRIC ELECTRIC CAPACITY КW BTU/HR BTU/HR BTU/HR ΧW KW BTU/HR ---- (47) ---(49) ----(70) ----(78) ----(45) ----(47) ---- (49) ---- (70) MONTHLY SUMMARY (JAN) 0.000 0.000 0. -184909. 1600. 0.000 0.000 0 MX 2.189 171647. 0. 227746. 0.000 2.248 176019. SM 0.013 1035.350 71886448. -87461704. 21337434. 0.000 1070.000 74169232. ΑV 0.000 1.392 96622. -117556. 28679. 0.000 1.438 99690. MONTHLY SUMMARY (FEB) 0.300 0.000 MN 0.000 0. -184909. 1600. 0.000 171647. MX 2.189 212237. ٥. 0.016 2.248 176019. 928.094 63043756. -78401200. 16571475. 973.341 0.016 66029348. ΑV 0.000 1.381 93815. -116668. 0.000 1.448 98258. MONTHLY SUMMARY (MAR) 0.200 0.000 0. -184909. 1600. 0.000 0.000 0 157790. 176937. MX 0.033 2.189 1022.216 0. 0.020 2.248 161809. -86352256. 0.033 66747488. SM 8120709. 0.056 1054.265 58720104. ΑV 0.000 1.374 89714. -116065. 10915. 0.000 1.417 92366. MONTHLY SUMMARY (APR) 0.000 0.000 MN 0. -184909. 1600. 0.000 0.000 154822. ΜX 4.798 2.189 ٥. 115365. 4.035 158765. 2.248 -83208816. SM 113.626 985.005 62667836. 2662968. 61.434 1011.555 64106336. ΑV 87039. 0.158 1.368 -115568. 3699. 0.085 1.405 89037. MONTHLY SUMMARY (MAY) 0.300 0.000 0.000 MN 0. -184909. 1600. 0.000 149725. ΜX 9.440 2.189 84192. 9.507 1460.727 2.248 1072.248 ٥. 153539. -88016424. SM 1537.111 1041.916 62948756. 2569776. 64731728. ΑV 2.056 1.400 84609. -118302. 3454. 87005. MONTHLY SUMMARY 'JUN') 2.000 0.000 0.000 MN 0. -184909. 1600. Ο.

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EZDOE - ELITE SOFTWARE DEVELOPMENT INC

ENTECH ENGINEERING

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MONTHLY SUMMARY (JUL)

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:34:28 SDL RUN 1 READING, PA 19603 = HOURLY-REPORT FT. GEORGE G. MEADE BUILDING 2790 - NEW SH-1 PAGE 2- 3 AC-21 AC-21 AC-21 AC-21 AC-25 AC-25 AC-25 AC-25 COOLING SUPPLY COOLING HEATING HEATING COOLING SUPPLY COOLING ELECTRIC ELECTRIC CAPACITY CAPACITY GAS ELECTRIC ELECTRIC CAPACITY KW KW BTU/HR BTU/HR BTU/HR BTU/HR --- (47) ----(70) ---- (78) ---- (45) ---- (47) ----(49) ---- (70) MONTHLY SUMMARY (AUG) 0.000 13.193 0.000 2.189 0. 0.000 -184909. 1600. 0.000 ΜX 152634. 156413. 0. 24213. 13.513 2.248 SM 3459.631 1017.838 60841692. -85982440. 1223584. 3454.380 1045.274 62423708 4.650 1.368 81776. AV -115568. 1645. 4.643 1.405 83903. MONTHLY SUMMARY (SEP) 0.000 0.000 12.570 MN 0. -184909. 1600. 0.000 0.000 0. 0. 154623. MX 2.189 41386. 12.356 2.248 1011.555 2.248 158199. SM -83208816. 2320.094 985.005 58820752. 1453107. 2253.543 60341792. 1.368 3.222 81695. -115568. 2018. 3.130 83808. MONTHLY SUMMARY (OCT) 0.000 0.000 0. MN -184909. 1600. 0.000 0.000 2.189 151894. 92647. 0. 7.341 2.248 155763. -86906976. SM 1038.399 1028.783 63141992. 2986440. 924.974 1063.257 65154072 AV 1.383 84868. 1.396 -116810. 4014. 87573. MONTHLY SUMMARY (NOV) 0.000 0.000 MN ٥. -184909. 1600. 0.000 0.000 0. 161206. мх 5.892 2.189 0. -83578632. 157423. 5.434 2.248 989.383 64651672. 5751224. 83.178 1016.051 66247152. ΑV 0.151 1.374 89794. -116081. 0.115 1.411 92010 MONTHLY SUMMARY (DEC) 0.000 MN 0.000 -184909. 0.000 0.000 0 164616. 0. -87276800. MX 0.043 2.189 177643. 0.000 2.248 168809. 1033.161 70117504. 0.051 16026200. 0.000 1076.744 73013152. ΑV 0.000 1.389 94244. -117308. 21541. 98135. 0.000 1.447 YEARLY SUMMARY 0.000 MN 0.000 ٥. -184909. 1600. 0.000 0.000 0. 2.189 12069.595 171647. 0. 763967424. -1019585408. 176019. MX 227746. 13.513 2.248 SM 14878.878 81085088 14542.671 12451.119 787099904. À٧ 1.699 -116391. 9256. 1.660 1.421 89852.

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 5/12/1996 9:34:28 SDL RUN 1 READING, PA 19603 = HOURLY-REPORT FT. GEORGE G. MEADE BUILDING 2790 - NEW SH-1 PAGE 1- 4 MMDDHH AC-25 AC-22 AC-22 AC-22 AC-22 AC-22 AC-23 AC-23 HEATING HEATING SUPPLY COOLING COOLING HEATING HEATING COOLING CAPACITY GAS ELECTRIC ELECTRIC CAPACITY CAPACITY GAS ELECTRIC BTU/HR BTU/HR KW BTU/HR BTU/HR BTU/HR KW --- (78) ---- (45) ----(49) ----(47) ---- (70) ---(78) ---- (45) ---- (47) MONTHLY SUMMARY (JAN) 0.000 MN -189893. 1600. 0.000 ٥. -184410. 1600. 0.000 209073. MX 0.028 0. 2.183 171210. 0. 209073. 0.028 -90388872. 14577701. 1032.559 71707784. -87226000. 14577701. 0.028 AV -121490. 19594. 0.000 1.388 96381. -117239. 19594. 0.000 MONTHLY SUMMARY (FEB) -189893. MN 1600. 0.000 0.000 -184410. 1600. 0.000 171210. MX 0. 194351. 0.023 2.183 0. 194351. 0.023 -78189904. -82223496. 925.592 SM 11533005. 0.101 62887812. 11533005. AV -122356. 17162. 0.000 1.377 93583. -116354. 17162. 0.000 MONTHLY SUMMARY (MAR) 1600. MN -189893. 0.000 0.000 -184410. 1600. ΜX 157416. 0.011 157388. ٥. 2.183 0. -85935128. 157416. 0.011 SM -89059632. 4844976. 0.011 1017.278 66441924. 4844976. 0.011 λV -119704. 6512. 0.000 1.367 89304. -115504. 6512. 0.000 MONTHLY SUMMARY (APR) MN -189893. 1600. 0.000 0.000 -184410. 1600. 0.000 154428. 87686. 1627457. мx ). -85451672. 4.984 2.183 37686. 4.984 SM 145.169 982.350 -82984568. 62551852. 1627457. 145.169 1.364 86878. -115256. 2260. 0 202 MONTHLY SUMMARY (MAY) -189893. 0.000 1600. 0.000 0.000 0. -184410. 1600 0. 149344. 71543. MX 71543. 9.516 2.183 0. 9.516 SM 1960254. 1573.630 1032.559 62340436. -87226000. 1950254. 1573.630 2635 AV -121746. 2635. 2.115 1.388 83791. -117239. MONTHLY SUMMARY (JUN) -189893. 0.000 ~ MN 1600. 0.000 a. -184410. 1600. 0.000 0. 8144. 13.102 2.183 150221. 0. 3144 13.102 SM -85451672. 1152939. 2955.094 982.350 57917736. -82984568. 1152939. 2955.094 -118683. 1615. AV 4.104 1.364 80441. -115256. MONTHLY SUMMARY (JUL)

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ENTECH ENGINEERING DOE-2.1D 6/12/1996 9:34:28 SDL RUN 1 FT. GEORGE G. MEADE 19603 BUILDING 2790 - NEW READING, PA = HOURLY-REPORT PAGE 2- 4 AC-22 AC-25 AC-22 AC-22 AC-22 AC-22 AC-23 AC-23 HEATING HEATING COOLING SUPPLY COOLING HEATING HEATING COOLING CAPACITY 242 ELECTRIC ELECTRIC CAPACITY CAPACITY GAS ELECTRIC BTU/HR BTU/HR BTU/HR BTU/HR KW KW BTU/HR KW ---- (78) ---- (45) ---- (47) ----(49) ---- (70) --- (78) ---- (45) ---- (47) MONTHLY SUMMARY (AUG) -189893. MN 1600. 0.000 0.000 ٥. -184410. 1600 0.000 13.161 10821. 2.183 ΜX 0. 152251. ٥. 10821. 13.161 SM -88300064. 1199622. 3465.539 1015.095 60690616. -85750720. 1199622. 3465.539 1612. ΑV -118683. 4.658 1.364 81573. -115256. 1612. MONTHLY SUMMARY (SEP) 0.000 -189893. MN 1600. 0.000 0. -184410. 1600. 0.000 29751. 0. 154269. MX 12.540 2.183 0. 29751. 12.540 1287866. -82984568. SM -85451672. 2320.114 982.350 58678048. 1287866. 2320.114 ΑV -118683. 1789. 3.222 81497. 1.364 -115256. 1789. 3.222 MONTHLY SUMMARY (OCT) -189893. 1600. 0.000 0.000 ٥. -184410. 1600. 0.000 151507. MX 0. 67733. 8.063 2.183 0. 67733. 3.063 -86488360. -89819200 SM 2152313. 1055.385 1023.827 62842312. 2152313. 1055.385 AV -120725. 2893. 1.419 1.376 84465 -116248 2893. 1.419 MONTHLY SUMMARY (NOV) MN -189893. 1600. 0.000 0.000 ٥. -184410. 1600. 0.000 ΜX 0. 132625. 5.858 2.183 158840. 0. 132625. 5.358 -83353384. 3257296. " 4524. SM -85831456. 114.483 986.716 64505120. 3257296. 114.483 AV -119210. 0.159 1.370 89590. -115769 4524. MONTHLY SUMMARY (DEC) MN -189893. 1600. 0.000 0.000 0. -184410. 1600. 0.000 161860. 164197. 0. -86672768. MX 0. 0.028 2.183 161860. 0.028 -90958552. 10198401. 0.039 1026.010 69632184. 10198401. 0.039  ${\tt AV}$ -122256. 13708. 0.000 1.379 93592. ~116496. 13703. 0.000 YEARLY SUMMARY -189893. MN 1600. 0.000 0.000 -184410. 1600. 0.000 209073. 54992232. 0. 0. -1051815104. 13.161 15007.045 2.183 12021.779 ΜX 171210. 209073. 13.161 SM 761065664 54992232. 15007.045 -120070. 1.713 1.372 86880. -115930. 6278. 1.713

EZDOE - ELITE SOFTWARE DEVELOPMENT INC

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:34:28 SDL RUN 1 PA 19603 = HOURLY-REPORT READING, FT. GEORGE G. MEADE BUILDING 2790 - NEW SH-1 MMDDHH AC-23 AC-23 AC-23 AC-24 AC-24 AC-24 AC-24 SUPPLY HEATING COOLING HEATING COOLING STIPPI.V COOLING HEATING GAS BTU/HR ELECTRIC CAPACITY CAPACITY ELECTRIC ELECTRIC CAPACITY CAPACITY KW BTU/HR BTU/HR KW BTU/HR BTU/HR ---- (70) ---- (78) ----(45) ---- (49) --- (47) ----(49) ----(70) MONTHLY SUMMARY (JAN) 0.000 2.183 MN 0. -184410. 1600. 0.000 0.000 0. -191388. MX 171210. 229305. 177330. 0. 0.016 2.266 ٥. SM 1032.559 71707784. -87226000. 20810556. 0.029 1078.426 74722200. -91100576 ΑV 1.388 96381. -117239. 27971. 0.000 1.449 100433. -122447. MONTHLY SUMMARY (FEB) 0.000 MN ο. -184410. 1600. 0.000 0.000 0. -191388. 171210. 211839. MX 2.183 ٥. 0.037 2.266 177330. 0. -78189904. 62887812. -82870896. SM 925.592 16115346. 0.067 981.005 66522244. ΑV 1.377 93583. -116354. 23981. 0.000 1.460 98991. -123320. MONTHLY SUMMARY (MAR) 0.000 ٥. -184410. MN 1600. 0.000 0.000 Ο. -191388. 157388. 2.183 0. 175511. 163014. 0.000 2.266 0. -89760856. -85935128. SM 1017.278 66441924. 7871895. 0.000 1062.567 69235928. ΑV 1.367 89304 -115504 10581 0.000 1.428 93059. -120646. MONTHLY SUMMARY (APR) 0.000 1600. MN ο. -184410. 0.000 0.000 -191388. 2.183 154428. MX 115219. 0. 4.231 67.859 2.266 159948. -82984568. SM 982.350 62551852. 2604884. 1019.520 64591256. -86124488. ΑV 1.364 \*86878. -115256. 3618. 0.094 89710. -119617. MONTHLY SUMMARY (MAY) 0.000 0.000 MN ٥. -184410. 1600. 0.000 Ο. -191388. 149344. 9.618 1477.246 154682. MX 2.183 ٥. 84283. 2.266 0. ~87226000. SM 1032.559 62340436. 2542946. -91291960. 1080.691 65209720. ΑV 1.388 83791. -117239. 1.986 1.453 87647. -122704. MONTHLY SUMMARY (JUN) 0.000 0. -184410. 1600. 0.000 0.000 2.266 0. -191388. 150221. MX 2.183 0. 17642. 13.555 155339. 0. -82984568. 982.350 57917736. SM 1191115. 2943 063 1019.520 59999192. -36124488. ΑV 80441. -115256. 1.364 1654. 1.416 4.088 83332. -119617. MONTHLY SUMMARY (JUL) 0.000 1600. 0.000 0.000 2.266 ο. -191388 158061.

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	DING, PA	19603	EZDOE - E	LITE SOFTWARE : E G. MEADE	DEVELOPMENT INC	DOE-2 BUILDING 27		9:34:2	3 SDL	RUN
H-1 	= HOU	RLY-REPORT							PAGE	2-
	AC-23	AC-23	AC-23	AC-24	AC-24	AC-24	AC-24	AC-24		
	SUPPLY	COOLING	HEATING	HEATING	COOLING ELECTRIC	SUPPLY	COOLING	HEATING		
		CAPACITY				ELECTRIC	CAPACITY	CAPACITY		
	KW	BTU/HR	BTU/HR	BTU/HR	KM	KW	BTU/HR	BTU/HR		
	(49)	(70)	(78)	(45)	(47)	(49)	(70)	(78)		
MONTHLY	SUMMARY (AUG)									
MIN	0.000	0.	-184410.	1600.	0.000	0.000	0.	-191388.		
MX	2.183	152251.	0.	23792.	13.618	2.266	157617	-191368.		
SM			-85750720.		3495.572					
AV			-115256.		4.698					
ONTHLY	SUMMARY (SEP)									
MN	0.000		-184410.	1600.	0.000	0 000				
MX		154269.	0.		12.074	0.000	0. 159494.	-191388.		
SM				1411166	2303.007	1010 530	159494.	0.		
ΑV	1.364	81497.	-115256.	1960.	3.199	1.416	34415.	-86124488. -119617.		
MONTHER V	SUMMARY (OCT)									
MN	0.000		-194470	1600	0.000					
MX		151507	-104410.	2500.	0.000 8.089	0.000	0.	-191388.		
SM	1023 827	62842312	-86488360	2020242	965.678	2.266	156923.	0.		
AV	1.376	84465.	-116248.	3804.	1.298		65497150. 88034.			
#∩NTT#T.V	SUMMARY (NOV)									
MN	0.000	n	-194410	1600	0.000		_			
MX		158840	0	157901	0.000 5.591	7.000	0.	-191388.		
		64505120	-23353384	5449530	88.607	2.255	165876.	0.		
AV	1.370	89590.	-115769.	7569.	0.123		92704.			
ONTHLY	SUMMARY (DEC)									
	0.000		-184410	1600	0.000	0.000	^	101200		
MX		164197.	0.	176438.	0.017					
			-86672768.		0.017	1080 601	170065. 73234288.	01.22.252		
AV					0.000		98433.			
EARLY	SUMMARY									
		٥.	-184410.	1500	0.000	0.000	0.			
MX	2.183	171210.	0.	229305.	13.618	2 256	177330	+>+34388.		
SM		761065664.	-1015546752.	78823272.	13.618 14752.236	12542 363	792464320 -	1059522624		
AV	1.372	86880.	-115930.	3998.	1.684	1 432	90464.	-120052		
						4.724		-120950.		

EZDOE - ELITE SOFTWARE DEVELOPMENT INC FT. GEORGE G. MEADE ENTECH ENGINEERING DOE-2.1D 6/12/1996 9:34:28 SDL RUN 1 READING, PA 19603 BUILDING 2790 - NEW = HOURLY-REPORT PAGE 1- 6 MMDDHH AC\_FRONT AC\_FRONT AC\_FRONT AC\_FRONT AC\_FRONT HEATING COOLING SUPPLY COOLING HEATING ELECTRIC GAS ELECTRIC CAPACITY CAPACITY BTU/HR KW KW BTU/HR BTU/HR ---- (45) ---- (47) ----(49) --- (70) ---- (78) MONTHLY SUMMARY (JAN) MN 1600. 510277. 0.000 0.000 -379785. 346317. MX 0.000 4.496

SM 97580168. 0.000 2198.446 150074208. -185714960. ΑV 201713. 131156. 0.000 2.955 -249617. MONTHLY SUMMARY (FEB) 0.000 1600. 511119. 0.000 MN ٥. -379785. 346317. ΜX 0.000 4.496 0. SM 0.000 1996.135 133501488. -168624640. ΑV 122011. 0.000 2.970 198663. -250930. MONTHLY SUMMARY (MAR) 1600. MN 0.000 0.000 -379785. 319870. MX 462382. 0.037 4.496 0. 2117.522 -178878832. SM 55946136. 0.037 135706672. 2.846 75196. 0.000 182401. -240429 MONTHLY SUMMARY (APR) 1600. 366208. 0.000 MN 0.000 ο. -379785. 312371. MΧ 0.067 4.496 0. 0.067 -170903344. SM 21670370. 2023.110 124558696. AV 30098. 2.810 172998. -237366. MONTHLY SUMMARY (MAY) 0.000 1600. 255538. 0.000 MN 0. -379785. 302088. ΜX 16.338 4.496 0. -191411776. SM 13688585. 1627.266 2265.883 135136496. AV 18399. 2.187 3.046 181635. -257274. MONTHLY SUMMARY (JUN) 1600. MN 0.000 0.000 → 0. 300275. -379785. ΜX 84920. 26.551 4.496 0. SM 2150103. 4469.368 2036.598 118868832. -172042704. ΑV 2986. 6.207 2.829 165096. MONTHLY SUMMARY (JUL) 0.000 MN 1600. 0.000 -379785. 26.549 5566.915 316903. 17056. 4.496 2090.547 MX SM 1205856. -176600128. 124330880. ΑV 1621. 2.810 167111. -237366.

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC
DING, PA 19603 FT. GEORGE G. MEADE BU
+ HOURLY-REPORT DOE-2.1D 5/12/1996 9:34:28 SDL RUN 1 BUILDING 2790 - NEW ENTEC READING, SH-1

SH-1 = HOU		RLY-REPORT	PAGE 2- 6			
	AC_FRONT	AC_FRONT	AC_FRONT	AC_FRONT	AC_FRONT	
	HEATING	COOLING	SUPPLY	COOLING	HEATING	
	GAS	ELECTRIC	ELECTRIC	CAPACITY	CAPACITY	
	BTU/HR	KM	KW	BTU/HR	BTU/HR	
	(45)	(47)	(49)	(70)	(78)	
MONTHLY	SUMMARY (AUG)					
MN	1600.	0.000			-379785.	
MX	84000.	26.828	4.496	305036.	0.	
SM	2039008.	5475.979	2104.034	124686640.	-177739472.	
AV	2741.	7.360	2.828		-238897.	
MONTHLY	SUMMARY (SEP)					
MN	1600.	0.000	0.000	0.	-379785.	
MX	130282.	23.770	4.496	307778.	0.	
SM	4882781.	3086.183	2099.539	123737584.	-177359680.	
AV	6782.		2.916		-246333.	
MONTHLY	SUMMARY (OCT)					
MN	1600.	0.000	0.000	0.	-379785.	
MX	312343.	12.092	4.496	306464.	0.	
SM	18607804.	665.461	2220.925	306464. 134023424.	-187613920.	
AV	25010.		2.985		-252169.	
MONTHLY	SUMMARY (NOV)					
MN	1600.	0.000	0.000	0.	-379785.	
MX	459769.	0.015	4.496	312371.	0.	
SM	43200148.	0.028	2059.077	131563384.	-173941600.	
AV	60000.	0.000	2.860	182727.	-241586.	
MONTHLY	SUMMARY (DEC)					
MN	1600.	0.000	0.000	0.	-379785.	
MX	463277.	0.000	4.495	332132.	0.	
SM	86191032.	0.000	2202.942	147093552.	-186094736.	
AV	115848.	0.000	2.961		-250127.	
YEARLY S	SUMMARY					
MN	1600.	0.000	0.000	0.	-379785.	<u>.</u> ,
MX	511119.	26.828	4.496		0.	
SM	429153536.	20891.305	25414.758	1583281792.	-2146925824.	
AV	48990.	2.385	2.901	180740.		

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:34:28 SDL RUN 1 READING, PA 19603 = HOURLY-REPORT FT. GEORGE G. MEADE BUILDING 2790 - NEW SH-2 MMDDHH AC\_3\_8 AC\_3\_8 AC\_3\_8 AC\_3\_8 AC\_3\_8 AC-1\_2 AC-1\_2 AC-1 2 HEATING COOLING SUPPLY COOLING HEATING HEATING COOLING SUPPLY ELECTRIC CAPACITY GAS ELECTRIC CAPACITY GAS ELECTRIC ELECTRIC BTU/HR КW BTU/HR BTU/HR BTU/HR ΧW ΚW ----(45) ---(49) ----(70) ----(47) ----(78) ----(45) ----(47) --- (49) MONTHLY SUMMARY (JAN) MN 1600. 0.00 0.000 0. -675339. 1500. 0.000 0.000 854284. 540233. 0.000 MX 6.171 0. 736730. 0.000 SM 140958160. 0.000 3017.815 234104064. -330240640. 131661744 0.000 3202.886 AV 189460. 0.000 -443872. 176965. 0.000 4.305 MONTHLY SUMMARY (FEB) MN 1600. 0.000 0.000 0. -675339. 1600. 0.000 0.000 MX 810304. 0.000 6.171 540233. 726953. 0. 0.000 6.590 SM 112884904 0.000 2746.273 208774624. -300525728. 105560808. 0.000 2906.323 ΑV 167983. 0.000 4.087 310677. -447211. 157085. 4.325 MONTHLY SUMMARY (MAR) MN 1600. 0.000 0.000 Ο. -675339. 0.000 0.000 629613. 498977. 0.007 6.171 0. -318759872. MX 678142. 0.055 6.590 0.007 2912.902 74899312. 212134304. 69083752 2.055 3097.441 ıν 100671. 0.000 3.915 285127. 92855. 0.000 4.163 MONTHLY SUMMARY (APR) 1600. 0.000 0.000 -675339. 0.000 1600. 0.000 487280. MX 521189 0.000 6.171 2777.131 J. -303902400. 498627. 0.042 6.590 0.000 SM 29238248. 194129984. 25724698. 0.079 2965.635 ΑV -422087. 35729. 4.119 0.000 MONTHLY SUMMARY (MAY) 1600. 0.000 0.000 0.000 0. -675339. 1500 0.000 ΜX 404611. 26.719 6.171 471238. ٥. 346734. 24.385 6.590 SM 17842470. 2764.960 3030.158 205324384. -331591296. 16646566. 2599.580 3295.150 ΑV 23982. 4.073 3.716 275974. -445687. 22374. MONTHLY SUMMARY (JUN) 1600. 0.000 0. 0.000 MN 0.000 -675339. 1500. 0.000 471773. 150248. 42.747 6.171 106417. G. 38.276 6.590 SM 2640373. 7606.702 2777.131 185579920. -303902400. 2278831. 6849.218 2978.816 257750. ΑV 3667. 10.565 3.857 -422087. 4.137 MONTHLY SUMMARY (JUL) 1600. MN 0 000 0.000 0 -675339. 1500. 3.000 0.000 41.215 6.171 497559. MX 50444. ٥. 19359. 38.415 1311186. 2869.702 196170160. -314032480. 1208159. 8334.795 3064.490 12.681 3.857 ΑV 1762. 1624. 11.270 4.119

REA SH-2	ADING, PA	EERING 19603 TRLY-REPORT	FT. GEOR	GE G. MEADE	E DEVELOPMENT INC	DOE-2 BUILDING 27	:.1D 6/12/1996 '90 - NEW	9:34:28 SDL RUN
								PAGE 2-
	AC_3_8	AC_3_8	AC_3_8	AC_3_8	AC_3_8	AC-1_2	AC-1_2	AC-1_2
	HEATING	COOLING	SUPPLY	COOLING	HEATING		COOLING	SUPPLY
	GAS	ELECTRIC	ELECTRIC	CAPACITY	CAPACITY	GAS	ELECTRIC	ELECTRIC
	BTU/HR	KW	KW	BTU/HR	BTU/HR		KM	KW
	(45)	(47)	(49)	(70)	(78)	(45)	(47)	(49)
MONTHLY	Y SUMMARY (AUG)			•				, ,
MIN	1600.	0.000	0.000	0	-675330	1500		
MIX	146358.	42.188	5.171	478353	-675339. 0.	1600.	0.000	
SM		9387.908	2875.873	196211778	-314707840.			6.590
AV	2874.	12.618	3.865	263725	-422994.		8343.585	3077.670
				203723.	-422994.	3010.	11.214	4.137
	SUMMARY (SEP)							
MN	1600.	0.000	0.000	0.	-675339.	1600	0.000	0.000
MX		39 691	6 777	404364			0.000 35.488	0.000
SM	6041854.	5339.935	2826.502	190384144.	0. -309305088.	5916669	33.400	6.590
ΑV	8391.	7.417	3.926	264422.	-429590.	3218.	4827.389 6.705	4.238
MONTHLY	SUMMARY (OCT)							
MN	1600.	0.000	0.000	•	-675339. 0.			
MX	429302.	21.333	6 171	470065	-675339.	1600.	0.000	0.000
SM	23072330.	1282.000	3005 472	4/8065.	0.	435700.	17.568	6.590
AV	31011	1 723	4.040	276530.	-675339. 0. -328889952.	21838668.	1096.029	3242.428
	****	2.723	4.040	2/6530.	-442056.	29353.	1.473	4.358
	SUMMARY (NOV)							
	1600.	0.000	0.000	0.	-675339.	1.000		
MX		3.224	6.171	487280	0,2333.	635335	0.000	0.000
SM	58622532.	12.598	2826.502	205077536	-675339. 0. -309305088.	52563	0.385	6.590 3018.358
AV	31420.	0.017	3.926	284830.	-429590.	76795.	0.130	
						76733.	3.300	4.192
	SUMMARY (DEC)							
	1600.		0.000	0.	-675339.	1600	2.200	0.000
MX		0.300	6.171	518105.	-675339. 0.	680043	0.000	0.000
	121150192.	0.000	3030.138	229920704.	-331591296.	114058048	0.000	5.590 3209.476
AV	162850.	0.000	4.073	309033.	-445687.	153304.	0.300	3209.476 4.314
YEARLY S	SUMMARY							
MIN	1500.	0.000	0.000	•	675220			
MX	854234.	42.747	6 171	U.	-675339. 0.	1600.	0.300	0.000
SM	590809920.	35829.027	34695 617	2462510606	0. -3796753920.	736730.	38.415	6.590
AV	67444.	4.090	3.961	281227.	-3/96/53920.	551510016.	32100.859	37109.984
			3.701	251227.	-433419.	62955.	3.664	4.236

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:34:28 SDL RUN 1 READING, PA 19603 = HOURLY-REPORT FT. GEORGE G. MEADE BUILDING 2790 - NEW SH-2 PAGE 1- 2 -----MMDDHH AC-1\_2 AC-1\_2 AC\_EXP AC\_EXP AC\_EXP AC\_EXP AC\_EXP COOLING SUPPLY HEATING HEATING COOLING COOLING HEATING GAS BTU/HR CAPACITY CAPACITY ELECTRIC ELECTRIC CAPACI. BTU/HR CAPACITY CAPACITY KW BTU/HR BTU/HR ---- (45) ----(70) ---- (78) ---- (47) ----(49) ---- (70) ---- (78) MONTHLY SUMMARY (JAN) 0.000 · `o. 503066. -556719. MN 1600 0.000 ٥. -521332. 470959. 702260. 0.000 MX 0. 6.171 0. 216581712. -270565440. 168438960. 0.000 3023.987 204536176. -255452880. ΑV 291104. -363663. 226396. 0.000 4.064 274914. -343351. MONTHLY SUMMARY (FEB) 503066. 0.000 0. -556719. 1600. 0.000 -521332. 707131. 470959. MX 0. 0.021 6.171 143864864. -245513088. 2777.131 184119952. -234599552. SM 192418960. 0.021 λV 286338. -365347. 214085. 0.000 4.133 273988. -349106. MONTHLY SUMMARY (MAR) -556719. 1600. 0.000 0.000 0. 462455. MN -521332 683018. 0. 0.000 6.171 434992. υ. -261657920. 0. 185337392. SM 196630512. 111779648. 0.000 2919.073 -246590192. 3.923 249109. ٦V 264288. -351691 150241 0 000 -331438. MONTHLY SUMMARY (APR) -556719. -521332. MN 453756. 0. 1600. 0.000 0.000 ٥. 578302. 424795. MX 0. -250523552. 0.033 6.171 ٥. -234599552. 55705468. 0.062 2777.131 SM 181044336. 168962848. ΑV 251450. -347949. 77369. 0.000 3.857 234671. MONTHLY SUMMARY (MAY) 0.000 0. -556719. MN 438818. 1600. 0.000 0. -278359520. 392778. 6.171 3320.214 410811. 196708208. 0. -280476832. MX 15.874 36961968. 1134.337 SM 194397024. ΑV 261286. -374139. 49680. 1.525 264393. -376935. MONTHLY SUMMARY (JUN) -556719. 0.000 5.171 -521332. 0. 1600. 0.000 405634. 436206. 0. -251636992. 33.049 4359.128 MX 154566. 6757061. 171263024. 2894.387 168200896. -244504895 SM ΑV 237865. -349496. 6.054 4.020 233612. -339590. MONTHLY SUMMARY (JUL) 0.000 -521332. -556719. MN 0. 0.000 0. -258874336. 6.171 2869.702 460402. 32847. 36.032 434342.

179354240.

241068.

-347949.

1864443.

2506.

5731.518

7.704

169867744.

3.357

228317.

-242419536.

-325833.

SM

	DING, PA	NEERING 19603	EZDOE - EI FT. GEORGI	LITE SOFTWARE I E G. MEADE	DEVELOPMENT IN	C DOE- BUILDING 2	2.1D 6/12/1996 790 - NEW	9:34:28 SDL RUN
SH-2		URLY-REPORT						PAGE 2-
		AC-1_2		AC_EXP	AC_EXP	AC_EXP	AC_EXP	
	COOLING	HEATING CAPACITY	HEATING	COOLING	SUPPLY	COOLING	HEATING	
	CAPACITY	CAPACITY	GAS	ELECTRIC	ELECTRIC	CAPACITY	CAPACITY	
	BTU/HR	BTU/HR	BTU/HR	KW	KW	BTU/HR	BTU/HR	
	(70)	(78)	(45)	(47)	(49)	(70)	(73)	
MONTHLY	SUMMARY (AUG	.)						
MN	0.	-556719.	1600.	0.000	0.000	٥.	-521332	
MIX	442745.	-556719. 0.	143346.	34.078	6.171	411737	0	
	179506976.	-259987776.	4383085.	5596.441	2925.244	172674080	-247111536	
AV	241273.	-349446.	5891.	7.522	3.932	232089.	-332139.	
MONTHLY	SUMMARY (SEP	)						
MN	0.	~556719.	1600.	0.000	0.000	0	-521332	
MX	446936.	0. -257760912.	203927.	26.774	6 171	415660	1321332.	
SM	177618176	-257760912.	13365006	2808 935	3023 986	177086784	255152000	
AV	246692.	-358001.	18563.	3.901	4.200	245954.	-354796.	
MONTHLY	SUMMARY (OCT	)						
MN	0.	-556719.	1600.	0.000	0.000	0	- 571 777	
MX	445175	0	571478	11 107	6 171	116763	-541334.	
SM	193757840	-273905760	45217996	372 937	3146 020	1201762.	262112501	
ΑV	260419.	-556719. 0. -273905760. -368153.	60777.	0.501	4.255	254269.	-26/443504. -359467.	
	SUMMARY (NOV							
			1600	0.000	0.000	•	****	
MX	453756	-556719. 0.	643961	0.000	6.000	424705	-521332.	
SM	191218624	-254977312	85442304	0.000	2851 107	100175257	0.	
AV	265581.	-254977312. -354135.	118670.	0.000	3.960	250175.	-240855536.	
MONTHLY	SUMMARY (DEC	}						
MN	0.	-556719.	1600.	0.000	0.000	0	-521332	
MX	482461.	-556719. 0.	674265.	0.000	6.171	451668	- 22232.	
SM	212265936.	-271122176.	150906624	0.000	3036.329	200879696	-756195570	
ΑV	285304.	-271122176. -364412.	202831.	0.000	4.081	270000.	-344752.	
	SUMMARY							
MN	0.	-556719.	1600.	0.000	0.000	3	-521332	_
MX	503066.	0.	707131.	36.032	6.171	470959	-521332. 0.	
SM	2286051328	-3134884864.	824687424	20003.379	35584 301	2197676032	-3006007688	
		-357864.			4.062			

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:34:28 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW
REPORT- PV-A EQUIPMENT SIZES

REPORT TO BUILDING STARS

NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER EQUIPMENT SIZE INSTO (MBTU/H) AVAIL (MBTU/

HW-BOILER

0.000 1 1

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:34:28 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW
REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY WEATHER FILE- BALTIMORE, MD

					s	ITE :	ENERG	Y					* * SOURCE
	2	3	4	5	6	7	8	9	10	11	12	13	* 14
MONTH	TOTAL HEAT LOAD	TOTAL COOLING LOAD	TOTAL ELECTR LOAD	RCVRED ENERGY	WASTED RCVRABL ENERGY	FUEL INPUT COOLING	ELEC INPUT COOLING	FUEL INPUT HEATING	ELEC INPUT HEATING	FUEL INPUT ELECT	TOTAL FUEL INPUT		* TOTAL * SOURCE * ENERGY
JAN	0.0	0.0	337.8 98.9E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	662.5	1000.3	* * 1676.9 *
FEB	0.0	0.0	300.9 88.1E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	542.6	843.5	* * 1446.1 *
MAR	0.0	0.0	345.3 101.1E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	355.3	700.6	* * 1392.3 *
APR	0.0	0.0	336.2 98.5E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	147.3		* 1156.9
MAY	0.0	0.0	400.3 117.2E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	101.8	502.1	* * 1304.0 *
JUN	0.0	0.0	492.5 144.3E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	23.2		* 1502.3
JUL	0.0	0.0	517.6 151.6E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	15.1		* 1569.4 *
AUG	0.0	0.0	537.6 157.4E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	20.4		• 1634.8 •
SEP	0.0	0.0	442.6 129.6E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	40.7		* 1369.7 *
OCT	0.0	0.0	369.0 108.1E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	127.1	495.1	* 1235.1
NOV	0.0	0.0	317.9 93.1E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	271.9	589.8	1226.4
DEC	0.0	0.0	337.8 98.9E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	561.4	899.2	1575.3
	0.0	0.0	4735.4 1386.9E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	2869.3		* ====== * 17089.8

NOTE-- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES FOLLOWED BY E ARE IN MWH (THOUSANDS OF KWH)

ENTECH ENGINEERING EZDOE - SLITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:34:28 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW
REPORT- PS-B MONTHLY PEAK AND TOTAL ENERGY USE WEATHER FILE- BALTIMORE, MD

MO UTILITY-ELECTRICITY FUEL-OIL NATURAL-GAS TOTAL (MBTU) 337.795 0.000 662.525 JAN PEAK (KBTU) 878.230 0.000 4368.156 DY/HR 10/ 9 31/24 31/ 7 TOTAL (MBTU) 300.880 0.000 542.505 FEB PEAK (KBTU) 878.555 0.000 4155.767 DY/HR 28/ 9 28/24 TOTAL (MBTU) 345.332 0.000 355.264 MAR PEAK (KBTU) 887.321 0.000 3681.530 DY/HR 29/19 31/24 TOTAL (MBTU) 336.188 0.000 147.289 APR PEAK (KBTU) 1009.056 0.000 2669.930 DY/HR 19/19 30/ 1 TOTAL (MBTU) 400.334 0.000 101.803 MAY PEAK (KBTU) 1420.595 0.000 1981.036 DY/HR 21/17 31/ 1 TOTAL (MBTU) 492.550 0.000 23.172 JUN PEAK (KBTU) 1714.696 0.000 564.622 DY/HR 28/17 30/ 1 TOTAL (MBTU) 517.576 0.000 15,113 JUL PEAK (KBTU) 1719.500 0.000 182.506 DY/HR 25/14 31/ 1 21/ 7 TOTAL (MBTU) 537.578 0.000 AUG PEAK (KBTU) 1720.256 0.000 596.129 DY/HR 18/17 31/ 1 22/7 TOTAL (MBTU) 442.564 0.000 40.716 SEP PEAK (KBTU) 1649.323 0.000 1009.333 DY/HR 30/1 30/7 TOTAL (METU) 368.987 0.000 127.071 PEAK (KBTU) 1305.231 0.000 2261.801 DY/HR 13/17 31/24 24/ 7 TOTAL (MBTU) 317.851 0.000 271.916 NOV PEAK (KBTU) 1047.528 3377.637 DY/HR 2/19 30/24 TOTAL (MBTU) 337.737 0.000 561.418 DEC PEAK (KBTU) 878.193 0.000 3700.395 DY/HR 31/ 9 31/24 12/ 7 ONE YEAR 4735.423 0.000 2869.325 USE/PEAK 1720.256 4368.156

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:34:28 PDL RUN 1
READING, PA 19603 FT GEORGE G. MEADE BUILDING 2790 - NEW
REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

ELECTRICAL LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
ELECTRICITY	4735.4	100.0
LOAD SATISFIED	4735.4	100.0
TOTAL LOAD ON DIANT	1775 1	

## SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
ELECTRICAL LOADS	4735.4	4735.4	0.000	0.000	0

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:34:28 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW
REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER FILE- BALTIMORE, MD

	AVG	MAX	MON					
EQUIPMENT	OPER	LOAD	DAY	SIZE OPER				
	RATIO	(MBTU)	HR	(MBTU) HRS				
HW-BOILER	0.000	0 000	0 0 0	0.000 0				

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:34:28 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW
REPORT- PS-1 EQUIPMENT LIFE CYCLE COSTS WEATHER FILE- BALTIMORE, MD

E	Q	U	1	P	М	Ξ	N	T		T	0	T	A	L	s	
HW-	-B0	ILE	3								0	. 1				
				NO	MIN	AL.	SIZ	E (	(MBTU)							0.000
				NUI	MBEI	RI	NST	ALI	ED							1
				FI	RST		CO	ST	(K\$)					0	. 0	0.0
				λN	NUA	L	CO	ST	(K\$)					0	. 1	0.1
				CY	CLIC	CAL	CO	ST	(K\$)					0	. 0	0.0
					1	TOT	AL-		(K\$)							0.1

EQUIPMENT TOTAL 0.1

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:34:28 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW .

REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE WEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE MBTU - ELECTRICITY FUEL-OIL NATURAL-GAS CATEGORY OF USE SPACE HEAT 0.00 0.00 2869.33 SPACE COOL 778.87 0.00 0.00 HVAC AUX 781.90 0.00 0.00 DOM HOT WTR 0.00 0.00 0.00 AUX SOLAR 0.00 0.00 0.00 LIGHTS 0.00 0.00 VERT TRANS 0.00 0.00 0.00 MISC EQUIP 396.18 0.00 0.00 TOTAL 4735.56 0.00 2869.33

TOTAL SITE ENERGY 7604.75 MBTU 97.0 KBTU/SQFT-YR GROSS-AREA 97.0 KBTU/SQFT-YR NET-AREA TOTAL SOURCE ENERGY 17089.81 MBTU 217.9 KBTU/SQFT-YR GROSS-AREA 217.9 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 1.8 PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.0

NOTE ELECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

RE SH-1	ENTECH ENGIN ADING, PA = HOU	19603	EZDOE - EI FT. GEORGI	LITE SOFTWARE : E G. MEADE	DEVELOPMENT INC	DOE-2 BUILDING 27	.1D 6/12/1996 90 - NEW	9:56: 3 SDL Rt	
MMDDHH	AC-17	AC-17	AC-17	AC-17	AC-17	AC-18	AC-18	AC-18	
	COOLING	SUPPLY	HEATING		HEATING			SUPPLY	
	ELECTRIC KW	ELECTRIC KW	GAS BTU/HR	CAPACITY BTU/HR	CAPACITY BTU/HR		ELECTRIC KW	ELECTRIC KW	
	(47)	(49)	(45)	(70)	(78)	(45)	(47)	(49)	
	Y SUMMARY (JAN)								
M2N	0.000	0.000	1600.	0.	-182915.	1600.	0.000	0.000	
MX		2.165	157179.	274560.	-182915. 0.	134933.	2 177	2 106	
SM	176.633	1024.187	6624051.	73719360.	-86518744	3620652	142 161	994 177	
ΑV	0.237	1.377	8903.	99085.	-86518744. -116289.	4866.	0.191	1.336	
	Y SUMMARY (FEB)								
MN		0.000	1600.	0.	-182915.	1600.	0.000	0.000	
MX	1.398	2.165	144468. 5624511.	216668.	0.	125844.	2.052	2.106	
SM	88.303	922.418		64615252.	-77921744.	3163818.	85.901	893.071	
ΑV	0.131	1.373	8370.	96154.	-115955.	4708.			
	Y SUMMARY (MAR)								
	0.600	0.000	1600.	0.	-182915. 0.	1600.	0.000	0.900	
МX			126532.	286477.	0.	97036.	3.343	2.106	
SM			2632770.	70233904	-85421248.	1693159.	78.259	979.429	
AV	0.092	1.359	3539.	94400.	-114814.	2276.		1.316	
	Y SUMMARY (APR)								
	0.000	0.000	1600.	0.	-182915. 0.	1600.	0.000	0.200	
32%		2.165	51408.	246091.	0.	1600.	5.412	2.106	
SM		2,14.303	1317536.	6/592480.	-82311696.	1152000.	440.357	949.941	
AV	0.304	1.353	1833.	93878.	-114322.	1600.	0.612		
	(YAM, YRAMMUZ Y								
	0.000	0.000	1600.	0.	-182915.	1600.	0.000	0.000	
.MX			40820.	154357.	0.	29729.	8.531	2.106	
SM	1707.159	1030.683	1550600.	62174492.	-87067472.	1270957.	1827.328	989.961	
ΑV	2.295	1.385	2084.	83568.	-117026.	1708.	2.456	1.331	
MONTHL	Y SUMMARY :JUN)								
:29	0.300	- 0.000	1600.	0.	-182915	1600.	0.000	0.000	
MIX	11.334	2.165	1600.	148962.	0.	1600	11.118	2.106	
SM	11.334 2648.536	974.385	1152000.	56274852.	-82311696.	1152000	11.118 2698.377	947.835	
AV	3.579	1.353	1600.		-114322.	1600.			
	Y SUMMARY (JUL)								
	0.300		1600.	٥.	-132915.	1600.	0.000	0.000	
MX	11.760	2.165	1600.	156804.	-132915. 0. -35055416.	1600.	0.000 11.500	2.106	
SM	2861.094	1006.864	1190400.	58579572.	0. -85055416.	1190400.	2874.969	979.429	
A7	3.346	1.353	1600.	78736.	-114322.	1600.	3.864	1.316	

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:56: 3 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW

КЕА! I-1		19603 RLY-REPORT	FT. GEORG	E G. MEADE		BUILDING 279	90 - NEW	
1-1	± 1007	CLI-REPORT						PAGE 2
	AC-17	AC-17	AC-17	AC-17	AC-17	AC-18	AC-18	AC-18
	COOLING	SUPPLY	HEATING	COOLING	HEATING	HEATING	COOLING	SUPPLY
	ELECTRIC	ELECTRIC	GAS	CAPACITY	CAPACITY	GAS	ELECTRIC	ELECTRIC
	KW	KW	BTU/HR	BTU/HR	BTU/HR	BTU/HR	KW	KW
	(47)	(49)	(45)	(70)	(78)	(45)	(47)	(49)
MONTHLY	SUMMARY (AUG)							
MN	0.000	0.000	1600.	0.	-182915.	1600.	0.000	0.000
MX	11.599	2.165	1600.	150954.	0. -85055416.	1600.	11.420	2.106
SM	2928.888	1006.864	1190400.	58354624.	-85055416.	1190400.	2962.319	979.429
AV	3.937	1.353	1600.	78434.	-114322.	1600.	3.982	1.316
MONTHLY	SUMMARY (SEP)							
MIN	0.000	0.000	1600.	0.	-182915. 0.	1600.	0.000	0.000
MX		2.165	1600.	152866.	0.	1600.	10.423	2.106
SM	2168.013	974.385		57542008.	-82311696.	1152000.	2254.253	947.835
AV	3.011	1.353	1600.	79919.	-114322.	1600.	3.131	1.316
ONTHLY	SUMMARY (OCT)							
MN	0.000	0.000	1600.	0.	-182915.	1500.	0.000	0.000
	7.072	2.165	37043.	194710.	0.	11533.	7.335	2.106
SM	1226.290	1019.856	1513510.	63487132.	-86152904.	1229509.	1378.546	979.429
AV	1.648	1.371	2034.	85332.	-115797.	1653.	1.853	1.316
ONTHLY	SUMMARY (NOV)							
MN	0.000	0.000	1600.	0.	-182915.	1500.	0.000	0.000
MX	5.369	2.165	114228.	258514.	0.	59650.	6.758	2.106
	194.913				-82494608.		229.084	952.047
AV	0.257	1.356	2947.	94878.	-114576.	1889.	0.318	1.322
ONTHLY	SUMMARY (DEC)							
MN	0.000			0.	-182915.			0.000
MX			122978.				2.139	2.106
SM	165.580	1022.021	4862054.	71698848.	-86335832.	2488035.	103.141	979.429
AV	0.223	1.374	6535.	96369.	-116043.	3344.	0.139	1.316
	SUMMARY							
MN	0.000	0.000	1600.	0.	-182915.	1500.	0.000	0.000
MX	11.760	2.165	157179.	286477.	0. -1008958400.	134933.	11.500	2.106
SM	14443.274	11943.793	30933762.	772584320.	-1008958400.	20662768.	15074.695	11572.011
ΑV	1.649	1.363	3531.	88195.	-115178.	2359.		1.321

EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:56: 3 SDL RUN 1 FT. GEORGE G. MEADE BUILDING 2790 - NEW ENTECH ENGINEERING
READING, PA 19603
= HOURLY-REPORT = HOURLY-REPORT PAGE 1- 2 MMDDHH AC-18 AC-18 AC-19 AC-19 AC-19 AC-19 AC-19 AC-21 COOLING CAPACITY HEATING CAPACITY HEATING COOLING ELECTRIC SUPPLY COOLING CAPACITY HEATING CAPACITY HEATING ELECTRIC GAS

	CAPACITY BTU/HR	CAPACITY BTU/HR	GAS BTU/HR	ELECTRIC KW	ELECTRIC KW	CAPACITY BTU/HR	CAPACITY BTU/HR	GAS BTU/HR
	(70)	(78)	(45)	(47)	(49)	(70)	(78)	(45)
MONTHLY	SUMMARY (JAN)							
MIN	0.	-177931.	1600.	0.000	0.000	0.	-177931.	1600.
MX	234434.	0.	134933.	2.177	2.106	234434.	0.	157034
SM	72072720.	-83983344.	3620652.	142.161	994.173	72072720.	-83983344.	6393482.
AV		-112881.		0.191				
MONTHLY	SUMMARY (FEB)							
MIN			1600.	0.000	0.000	0.	-177931.	1600.
MDC	213274.	0.	125844.	2.052	2.106	213274.	-177931. 0.	143450.
SM	63162108.	-75442680.	3163818.	85.901	893.071	63152108.	-75442680.	5397488.
AV	93991.	-112266.	4708.	0.128	1.329	93991.	-112266.	8032.
MONTHLY	SUMMARY (MAR)							
				0.000			-177931.	1600.
MX	282673.	0.	97036.	3.343	2.106	232673.	0.	123613.
SM	68696056.	-82737840.	1693159.	78.259	979.429	68596056.	-32737840.	2543106.
AV	92333.	-111207.	2276.	0.105	1.316	92333.	-111207.	3418.
MONTHLY	SUMMARY (APR)							
MN	0.	-177931.	1600.	0.000	0.000	0.	-177931.	1600.
MIX	206632.	0.	1600.	6.412	2.106	206632.	0.	50586.
SM	65825380.	-30246808.	1152000.	440.357				
AV	91424.	-111454.	1600.	0.612	1.319	91424.	-111454.	1795.
MONTHLY	SUMMARY (MAY)							
MN	0.	-177931.	1600.		0.000	0.	-177931.	1600.
	144384.				2.106	144384.	0.	40504.
SM	59711464.	-83627488.	1270957.	1827.328	989.961	59711464.	-83627488.	1540544.
ΑV	80257.	-112403.	1708.	2.456	1.331	30257.	-112403.	2071.
	SUMMARY (JUN)							
			1600.	0.000	0.000	0.	-177931.	1600.
XM	145427.	0.	1600.	11.118	2.106	145427.	0. -80068880.	1600.
				2698.377	947.835	54359972.	-80068880.	1152000.
ΑV	76194.	-111207.	1600.	3.748	1.316	76194.	-111207.	1600.
	SUMMARY (JUL)							
MIN	٥.	-177931.	1600.	0.000	0.000	٥.	-177931. 0.	1600.
	152902.			11.500	2.106	152902.	0.	1600.
				2874.969		57033628.	-82737840.	1190400.
AV	76732.	-111207.	1600.	3.864	1.316	76732.	-111207	1600.

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:56: 3 SDL RUN 1 READING, PA 19603 = HOURLY-REPORT BUILDING 2790 - NEW 19603 FT. GEORGE G. MEADE SH-1 PAGE 2- 2 AC-18 AC-18 AC-19 AC-19 AC-19 AC-19 AC-19 AC-21 SUPPLY COOLING HEATING HEATING COOLING COOLING HEATING HEATING CAPACITY CAPACITY GAS ELECTRIC ELECTRIC CAPACITY CAPACITY GAS BTU/HR BTU/HR BTU/HR KW KW BTU/HR BTU/HR BTU/HR ---- (70) ---- (78) ----(45) ----(47) ----(49) ---- (70) ---- (78) ---- (45) MONTHLY SUMMARY (AUG) -177931. 1600. 0.000 0.000 ٥. -177931. MN 147178. 0. 1600. 1600. ΜX 0. 11.420 2.106 147178. 0. 1600. -82737840. -82737840. SM 56885316. 1190400. 2962.319 979.429 56885316. 1190400. ΑV 76459. -111207. 1600. 3.982 1.316 76459. -111207. 1600. MONTHLY SUMMARY (SEP) MN ٥. -177931. 1600. 0.000 0.000 -177931. 1600. 149345. 149345. MX 0. 1600. 10.423 2.106 0. 1600. SM 56079080. -80068880. 1152000. 2254.253 947.835 56079080. -80068880. 1152000. ΑV 77888. -111207. 1600. 1.316 77888. -111207. 1600. MONTHLY SUMMARY (OCT) 0.000 MN 0. -177931. 1600. 0.000 -177931. 0. 1600. 0. -82737840. 176171. 11583. 7.335 2.106 176171. 0. 31628. SM 60914120. 1229509. 1378.546 979.429 60914120. -82737840. 1452512. ΑV 81874. -111207. 1653. 1.853 1.316 81874. -111207 1952. MONTHLY SUMMARY (NOV) 0.000 -177931. 1600. MM 0. 1600. 0.000 ٥ -177931. 253779. 69650. 6.758 253779. MX 0. 2.106 ٥. 110729. -30424744. SM 67071136. -80424744. 1359788. 229.084 952.047 67071136. 2024805. 93154 1889. 1.322 93154. ΔV -111701 0.318 -111701. MONTHLY SUMMARY (DEC) 0. 236315. 0.000 MN -177931. 1600 0.000 0. -177931. 1600. 2.139 236315. MX 0. 92408. 2,106 ٥. 120765. 69705824. 69705824. -82737840. 2488085. 103.141 979.429 -82737840. 4591810. 3344. ΑV 93691. -111207. 0.139 1.316 93691. -111207. YEARLY SUMMARY

MN

MX

ο.

282673.

752071808.

85853.

-177931.

-111593.

-977552064.

0.

1600

134933.

20662758.

2359.

0.000

11.500

1.721

15074.695

0.000

2.106

1.321

11572.011

- -177931.

-977552064.

٥.

1600.

157034

29920684.

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282673.

85853.

EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:56: 3 SDL RUN 1 FT. GEORGE G. MEADE BUILDING 2790 - NEW = HOURLY-REPORT SH-1 PAGE 1- 3 MMDDHH AC-21 AC-21 AC-21 AC-21 AC-25 AC-25 AC-25 COOLING SUPPLY COOLING HEATING HEATING COOLING SUPPLY COOLING ELECTRIC ELECTRIC CAPACITY CAPACITY GAS ELECTRIC ELECTRIC CAPACITY BTU/HR KW KW BTU/HR BTU/HR KW BTU/HR ----(70) ---(78) ----(45) ----(47) ---- (49) ----(70) MONTHLY SUMMARY (JAN) 0.000 2.141 0.000 2.189 MN 0. -184909. 1600. 0.000 0.000 0. ΜX 277404. 170814. 0. 2.247 2.248 284358. SM 175.660 1035.350 74486400. -87461704. 8903244. 177.460 1070.000 76586912. 1.392 ΑV 0.236 100116 -117556. 11967. 0.239 1.438 102939. MONTHLY SUMMARY (FEB) 0.000 0.000 1600. MN ٥. -184909. 0.000 0.000 0. 219137. MX 1.932 2.189 0. 156535. 2.352 2.248 223482. SM 928.094 -78401200. 37.999 64991588. 7656226. 137.619 973.341 67607144. ΑV 1.381 -116668. 11393. 0.205 1.448 100606 MONTHLY SUMMARY (MAR) 0.000 0.000 -184909. 1600. 0.000 0.000 MX 1.863 2.189 289674. 0. 138463. 294807 \_ 1.951 2.248 -86352256. SM 71.935 1022.216 71005408. 3629351. 75.117 1054.265 72734056. ΑV 0.097 1.374 95437. -116065. 4878 0.101 1.417 MONTHLY SUMMARY (APR) 0.000 0.000 MN 0. -184909. 1600. 0.000 5.825 2.189 248674. 70491. 0. 4.989 2.248 280069. -83208816. 985.005 SM 231.983 68298616. 1575263. 140.182 1011.555 69908624. AV 0.322 1.368 94859. -115568. 2188. 1.405 97095. MONTHLY SUMMARY (MAY) 0.000 0.000 MN 0. -184909. 1600. 0.000 0.000 0. MX 8.609 2.189 154225. 0. -88201336. 164410. 45387. 8.516 2.248 1727.490 1044.105 62944584. 1777205. 1650.275 1072.248 64598768. ΑV 2.322 1.403 84603. -118550. 2.218 1.441 36826. MONTHLY SUMMARY (JUN) 0.000 0.000 --11.425 MN Ο. -184909. 1600. 0.000 0.000 2.248 0. 2.189 985.005 0. -83208816. 11.592 MX 150534. 1600. 154111. SM 2669.679 56840048. 1152000 2651.305 1011.555 58257688. ΑV 3.708 1.368 78945. -115568. 1600. 1.405 80913. 3.682 MONTHLY SUMMARY (JUL) -184909. 0.000 MN 0.000 11.861 1600. 0.000 0.000 0 2.189 1017.838 158468. 0. -85982440. 1600. MX 12.126 152290. 2.248

1190400.

1600.

2883.212

3.875

1045.274

1.405

60638464.

81503.

ENTECH ENGINEERING

SM

AV

2886.158

59156840.

79512.

-115568.

REA SH-1		19603 RLY-REPORT	FT. GEOR	GE G. MEADE		BUILDING 27	90 - NEW		
								PA	GE 2-
	AC-21	AC-21	AC-21	AC-21	AC-25	AC-25	AC-25	AC-25	
	COOLING		COOLING	HEATING	HEATING	COOLING	SUPPLY	COOLING	
		ELECTRIC		CAPACITY	GAS	ELECTRIC	SUPPLY ELECTRIC	CAPACITY	
	KW	KM	BTU/HR	BTU/HR	BTU/HR	KW	KM	BTU/HR	
	(47)	(49)	(70)	(78)	(45)	(47)	(49)	(70)	
ONTHLY	SUMMARY (AUG)								
MN	0.000	0.000	0.	-184909.	1600	0.000	0.000	0.	
MX	11.749	2.189	152547.	0.	1600	11.936	2 240		
SM	2968.604	1017.838	58933952.	0. -85982440.	1190400.	2947 051	1045 774	£040£894	
AV	3.990	1.368	79212.	-115568.	1600.	3.961	1.405	81192.	
ONTHLY	SUMMARY (SEP)								
MN	0.000	0.000	0.	-184909.	1600.	0.000	0.000	0.	
MX	10.774		154557.						
SM	2220.284			-83208816.			1011 555	59595664	
AV	3.084	1.368	80730.	-115568.	1607.			82772.	
ONTHLY	SUMMARY (OCT)								
MN	0.000	0.000	٥.	-184909.	1600	0.000	0.000	^	
MIX	7.311	2.189	196983.	0.	52906.	7.013	2.248		
SM				-86906976.			1067 267	200976.	
AV	1.717	1.383	85990.	-116810.					
ONTHLY	SUMMARY (NOV)								
MIN	0.000	0.000	٥.	-184909.	1600	0.000	0.000	٥.	
MIX	6.525	2.189		0.		6 111	7 749	266017	
SM	188.822	987.194		-83393728.		199 231	1016.051	70522156	
AV	0.262	1.371		-115825.					
ONTHLY	SUMMARY (DEC)								
MIN	0.000	0.000	0.	-184909.	1600.	0.000	0.000	0.	
MX	2.070	2.189	242175.	0	132756	2 170	2 210	246506	
	159.467	1033.161	72542848.	-87276800.	6684050.	187.273	1076.744	74682560	
ΑV	0.214	1.389	97504.	-117308.	8984.				
	SUMMARY								
MN	0.000	0.000	0.	-184909.	1600.	0.000	0.000	0.	
MX	11.861	2.189	289674.	0.	170814.				
SM	14665.695			-1019585472.	39558568.		12451.119	801619584.	
AV	1.674	1.378	89083.	-116391.			1.421		

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:56: 3 SDL RUN 1 READING, PA = HOURLY-REPORT PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW SH-1 MMDDHH AC-25 AC-22 AC-22 AC-22 AC-22 AC-22 AC-23 AC-23 HEATING HEATING COOLING SUPPLY COOLING HEATING HEATING COOLING CAPACITY GAS ELECTRIC ELECTRIC CAPACITY CAPACITY GAS ELECTRIC BTU/HR BTU/HR KW BTU/HR BTU/HR BTU/HR ĸw ----(78) ---- (45) ---- (47) ----(49) ---- (70) ---- (73) ----(45) ---- (47) MONTHLY SUMMARY (JAN) 0.000 MN -189893. 1600 0.000 0. -184410. 1600. 0.000 276737. 150721. MX 0. 2.139 2.183 ٥. 150721. -90388872. 5588395. 178.730 1032.559 -87226000. 74345512. 5588395. 178.730 AV -121490. 7511. 0.240 99927. -117239. 7511. 0.240 MONTHLY SUMMARY (FEB) -189893. 1600. 0.000 0.000 ٥. -184410. 1600. 0.000 219090. MX 0. 138843. 2.093 2.183 0. 138843. 2.093 -78189904. -82223496. SM 4738895. 84.891 925.592 64960048. 4738895. 84.891 ΑV -122356. 7052. 0.126 1.377 96667 -116354. 7052. MONTHLY SUMMARY (MAR) 1600. MN -189893. 0.000 0.000 0. -184410. 1600. 0.000 ΜX 118476. 0. 289733. 1.947 2.183 0. -85935128. 118476. SM -89059632. 2280415. 59.810 1017.278 70859744. 2280415. 59.810 ΑV -119704. 3065. 0.080 1.367 95242. -115504. 3065. 0.080 MONTHLY SUMMARY (APR) MN -189893. 1600. 0.000 ٥. -134410. 1600 0.000 MX ٥. 40657. 6.028 2.183 210895. 0. 40657. 6.028 -85451672. SM 1242085. 285.096 68071864. 982.350 -82984568. 1242085. 285.096 -118683. 0.396 1.364 94544 1725 -115256. 0.396 MONTHLY SUMMARY (MAY) -189893. MN 1600. 0.000 0.000 ο. -184410 1600. 0.000 152138. мх 0. 34180. 8.650 2.133 0. 34180. 8.650 -90578784. SM 1422999. 1764.060 1032.559 62193708. -87226000. 1422999. 1764.060 ΑV -121746. 1913. 2.371 1.388 83594. -117239. 1913. MONTHLY SUMMARY (JUN) -189893. MN -1600. 0.000 0.000 ο. -184410. 1600. 1600. 11.367 2.183 150189. ο. 1600. 11.367 -35451672. 56698716. SM 1152000. 2696.959 982.350 -82984568. 1152000. 2696.959 1600. 3.746 AV -118683. 1.364 78748. -115256. 3.746 MONTHLY SUMMARY (JUL) -189893. MN 1600. 0.000 0.000 0. -134410. 0.000 ΜX 11.846 0. 1600. 157983. 2.183 0. 1600. 11.846 SM -88300064. 1190400. 2894.006 1015.095 59005704. -85750720. 2894 006 1190400. 3.890 AV -118683 1600. 1.364 79309. -115256. 1600.

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:56: 3 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW

	AC-25	AC-22	AC-22	AC-22	AC-22	AC-22	AC-23	AC-23
	HEATING	HEATING	COOLING	SUPPLY	COOLING	HEATING	HEATING	COOLING
	CAPACITY	GAS		ELECTRIC	CAPACITY	CAPACITY	GAS	ELECTRIC
	BTU/HR	BTU/HR	KW	KW	BTU/HR	BTU/HR	BTU/HR	KW
	(78)	(45)	(47)	(49)	(70)	(78)	(45)	(47)
ONTHLY	SUMMARY (AUG)							
MN	-189893.	1600.	0.000	0.000	0.	-184410.	1600.	0.000
MX	-189893. O.	1600.	11.748	2.183	152163.	-184410. 0.	1600.	11.748
SM		1190400.	2977.198	1015.095	58791668.	-85750720.	1190400.	2977.198
	-118683.				79021.	-115256.	1600.	
	SUMMARY (SEP)							
		1600.	0.000	0.000		-184410.		0.000
MX	0.	1600.	10.740	2.183	154202.	0.	1600.	10.740
SM	-85451672.	1152000.	2222.083	982.350		-82984568.		
ΑV	-118683.	1600.	3.086	1.364	80525.	-115256.	1600.	3.086
	SUMMARY (OCT)							
						-184410.		
MX	0.	27942.	7.264	2.183	196787.	0. -86488360.	27942.	7.264
SM	-89819200.							
ΑV	-120725.	1874.	1.739	1.376	85568.	-116248.	1874.	1.739
	SUMMARY (NOV)							
	-189893.	1600.	0.000 6.490	0.000	0.	-184410. 0.	1600.	0.000
:XX	0.				261083.	0.	101586.	6.490
	-85831456.		186.036	986.716	69145456.	-83353384.	1786585.	186.036
AV	-119210.	2481.	0.258	1.370	96035.	-115769.	2481.	0.258
	SUMMARY (DEC)							
						-184410.		
MX		117010.	2.167	2.183	242130.	0. -86672768.	117010.	2.167
	-90958552.							
ΑV	-122256.	5278.	0.181	1.379	97134.	-116496.	5278.	0.181
YEARLY	SUMMARY							
MN	-199893. 0.	1600.	0.000	0.000	0.	-184410. 0.	1600.	0.000
MX	0.	150721.	11.846	2.183	289733.	0.	150721.	11.846
						-1015546752.		
AV	-120070.	3090.	1.687	1.372	38811.	-115930.	3090.	1.687

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:56: 3 SDL RUN 1 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW READING, = HOURLY-REPORT ...... AC-23 AC-23 AC-24 MMDDHH AC-23 AC-24 AC-24 AC-24 AC-24 SUPPLY COOLING HEATING HEATING COOLING SUPPLY COOLING HEATING ELECTRIC CAPACITY CAPACITY GAS ELECTRIC ELECTRIC CAPACITY CAPACITY BTU/HR BTU/HR BTU/HR KW KW KW BTU/HR BTII/HR --- (49) ---- (70) ---- (78) --- (45) --- (47) ---- (49) ---- (70) MONTHLY SUMMARY (JAN) 0.000 -184410. 1600. 0.000 0.000 MN 0. -191388. ٥. ΜX 2.183 276737. 170697. 2.308 2.266 286494. -87226000. -91100576. 74345512. 8625358. 175.058 77260456. SM 1032.559 1078,426 99927. -117239. 11593. ΑV 0.235 1.388 1.449 103845. -122447. MONTHLY SUMMARY (FEB) 0.000 2.183 0. 1600. 0.000 -184410. 0.000 MN ٥. -191388. 155532. MX 219090. 0. 2.376 2.266 225357. 0. -78189904. SM 925.592 64960048. 7374066. 119.454 981.005 68232232. -82870896. AV 1.377 96667. -116354. 10973. 0.178 1.460 101536. -123320. MONTHLY SUMMARY (MAR) 0.000 MN 0. -184410. 1600. 0.000 0.000 -191388. 289733. 0. -85935128. 2.052 75.721 MX 2.183 136482. 2.266 297191. 0. 1017.278 70859744. 3477973. SM 1062.567 73297512. -89750856 95242. -115504. 4675. ΑV 1.367 0.102 1.428 98518. -120646. MONTHLY SUMMARY (APR) 0.000 1600. 0.000 0. -191388. MX. 2.183 210895. 0. -82984568. 69869. 5.214 2.266 282335. 68071864. 1541378. 148.156 SM 982.350 1019.520 70434776. -86124488. ΑV 1.364 94544. -115256. 1.416 97826. -119617. MONTHLY SUMMARY (MAY) 0.000 -184410. 1600. 0.000 0.000 MN 0. -191388 0. -87226000. 165644. 152138. 45074. 8.728 2.266 1764776. 65067960. -91291960. SM 1032.559 62193708. 1668.858 1080.691 ٨V 83594. -117239. 2372. 1.388 2.243 1.453 87457. -122704. MONTHLY SUMMARY (JUN) 0.000 1500. MN 0.000 2.183 0. -184410. 0.000 ٥. -191388. 11.673 150189. 1600. 2.266 155299. ٥. -82984568. SM 982.350 56698716. 1152000. 2670.170 1019.520 58684568. -86124488. 81506. 78748. -115256. AV 1.364 1600. 3.709 1.416 -119617.

0.000

1.416

1053.504

2.266

ο.

163549.

82090

61074624.

-191388

-88995304.

-119517

0.

0.000

12.206

3.906

2905.725

MONTHLY SUMMARY (JUL)

MN

ΜX

SM

ΑV

0.000 2.183

1015.095

1.364

0.

157983.

79309.

59005704.

-184410.

-85750720.

-115256.

0.

1600.

1190400.

1600.

ENTECH ENGINEER READING. PA		EERING	EZDOE - ELITE SOFTWARE DEVELOPMENT INC FT. GEORGE G. MEADE					9:56: 3	SDL RUN
SH-1	= HOU		rr. Gborg	S G. MEADE .		BUILDING 27			PAGE 2-
	AC-23	AC-23	AC-23	AC-24	AC-24	AC-24	AC-24	AC-24	
	SUPPLY	COOLING	HEATING	HEATING	COOLING ELECTRIC	SUPPLY	COOLING	HEATING	
	ELECTRIC	CAPACITY	CAPACITY	GAS	ELECTRIC	ELECTRIC	CAPACITY	Capacity	
	KW	BTU/HR	BTU/HR	BTU/HR	ELECTRIC KW	KM	BTU/HR	BTU/HR	
•	(49)	(70)	(78)	(45)	(47)	(49)	(70)	(78)	
MONTHLY	SUMMARY (AUG)								•
MN	0.000	0.	-184410.	1600.	0.000	0.000	٥	-191388.	
MX	2.183	152163.	0.	1600.	12.075	2.266	157529	-151388.	
SM	1015.095	58791668.	-85750720.	1190400.	2985.038	1053.504	60838220	-88995304	
VA	1.364	79021.	-115256.	1600.	12.075 2985.038 4.012	1.416	81772.	-119617.	
MONTHLY	SUMMARY (SEP)								
MN	0.000	0.	-184410.	1600.	0.000	0.000		-101700	
MX	2.183	154202.	0.	1600.	0.000 11.090	2 266	159429	-191300.	
SM	982.350	57977984.	-82984568.	1152000.	11.090 2192.289	1019.520	60027840	-86174488	
AV	1.364	80525.	-115256.	1600.	3.045	1.416	83372.	-119617.	
MONTHLY	SUMMARY (OCT)								
MIN	0.000	0.	-184410.	1600.	0.000	0.000	n	-191788	
MX	2.183	196787.	0.	47251.	7.248	2.266	202617	-191388. 0.	
SM	1023.827	63662920.	-86488360.	1679405.	1201.376	1069 363	66433278	-0033501 <i>6</i>	
AV	1.376	85568.	-116248.	2257.	0.000 7.248 1201.376 1.615	1.437	89292.	-121418.	
MONTHLY	SUMMARY (NOV)								
MN	0.000	0.	-184410.	1600.	0.000	0.000	0.	-191388	
MX	2.183	261083.	0.	128633.	0.000 6.263	2.266	269216.	0	
SM	986.716	69145456.	-83353384.	2757351.	6.263 191.238	1024.051	71183208.	-86507264.	
AV	1.370	96035.	-115769.	3830.	0.266	1.422	98866.	-120149.	
	SUMMARY (DEC)								
MN	0.000	0.	-184410.	1600.	0.000	0.000	٥.	-191388.	
MX	2.183	242130.	0.	130942.	2.327	2.266	248631.	0.	
SM	1026.010	72267880.	-86672768.	6426219.	195.315	1080.691	74979512.	-91291952	
AV	1.379	97134.	-116496.	8637.	0.000 2.327 195.315 0.263	1.453	100779.	-122704.	
YEARLY S	SUMMARY				- 0.000 12.206				
MN	0.000	0.	-184410.	1600.	- 0.000	0.000	٥.	-191388	
MX	2.183	289733.	0.	170697.	12.206	2.266	297191.	0	
SM	12021.779	777981248.	-1015546752.	38331324.	14528.399	12542.363	807514176.	-1059522624.	
ΑV	1.372	88811.	-115930.	4376.	1.658	1.432	92182.	-120950	

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ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:56: 3 SDL RUN 1 PA 19603 = HOURLY-REPORT READING, FT. GEORGE G. MEADE BUILDING 2790 - NEW SH-1 PAGE 1- 6 MMDDHH AC\_FRONT AC\_FRONT AC\_FRONT AC\_FRONT AC\_FRONT HEATING COOLING SUPPLY COOLING HEATING GAS ELECTRIC ELECTRIC CAPACITY CAPACITY BTU/HR BTU/HR BTU/HR ---- (45) ---- (47) ----(49) ---- (70) ---- (78) MONTHLY SUMMARY (JAN) 1600. 436732. MN 0.000 0.000 0. -379785. МX 1.045 346317. 4.496 0. 64251544. 4.501 2198.446 150119616. -185714960. ΑV 86360. 0.006 2.955 -249617. MONTHLY SUMMARY (FEB) 0.000 MN 1600. 0.000 0. -379785. МX 438604. 2.316 4.496 346317. Ο. SM 55574700. 10.408 2000.631 133941376. -169004416. À٧ 82700. 0.015 2.977 199318. -251495. MCNTHLY SUMMARY (MAR) '4N 1600. 0.000 0.000 -379785. 395946. 347182. :4X 2.357 4.496 0. 34949972. 59.040 2117.522 135914672. -178878832. ٨V 46976. 0.079 2.846 182681. -240429. MONTHLY SUMMARY (APR) 1600. 0.000 -379785. ΜX 289603. 2.921 4.496 333110. 0. 5.4 11933250. 88.211 2023.110 125420944. -170903344. ÄΫ 16574. 0.123 2.310 174196. -237366. MONTHLY SUMMARY (MAY) 1600. 0.000 MN 0.000 ٥. -379785 189603. 14.305 4.496 302088. 0. SM 8145257. 1858.351 2265.883 134384704. -191411776. AV 10948. 2.498 3.046 180625. -257274. MONTHLY SUMMARY (JUN) 0.000 - 1600. 57432. 0.000 MN ٥. -379785. 23.105 4.496 300162. 0.

SM

AV

MN

ЖX

311

1515244.

1190400.

1600.

MONTHLY SUMMARY (JUL) 1600. 1600.

2105.

4022.190

5.586

0.000

24.387

6.375

4743.045

2041.093

2.335

0.000

4.496

2090.547

2.810

116508064.

161817.

316696.

161696.

120301488.

0

-239476.

-379785.

-175600128.

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:56: 3 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW

SH-1 = HOURLY-REPORT PAGE 2- 6

SH-1	= HOU	RLY-REPORT				PAGE	2 -
	AC_FRONT	AC_FRONT	AC_FRONT	AC_FRONT	AC_FRONT	 	
	HEATING	COOLING	SUPPLY	COOLING	HEATING		
	GAS	ELECTRIC	ELECTRIC	CAPACITY	CAPACITY		
	BTU/HR	KW	ELECTRIC KW	BTU/HR	BTU/HR		
	(45)	(47)	(49)	(70)	(78)		
MONTHLY	SUMMARY (AUG)						
MN	1600.	0.000	0.000	0.	-379785.		
МX	78531.	24.107	4.496	304979.	0.		
SM	1799591.	4635.455	2104.034	120405184.	-177739472.		
VA	2419.	6.230	2.828	161835.	-238897.		
	SUMMARY (SEP)						
MN	1600.	0.000	0.000	0.	-379785.		
MX	32131.	19.235	4.496	312346.	0.		
SM	3104924.	2864.957	2099.539	121805296.	-177359680.		
ΑV	4312.	3.979	2.916	169174.	0. -177359680. -246333.		
MONTHLY	SUMMARY (OCT)						
MN	1600.	0.000	0.000	0.	-379785.		
MX	241472.	10.659	4.496	306464.	0.		
SM	11455242.	855.135	2220.925	134430672.	-187613920.		
VA	15397.	1.149	2.985	180686.	-252169.		
MONTHLY	SUMMARY (NOV)						
MN	1600.	0.000	0.000	0.	-379785.		
MX	408728.	0.000 2.694	0.000 4.496	321446.	-379785. 0.		
SM	27008492.	48.874	2059.077	132267288.	-173941600.		
ΑV	37512.	0.068	2.860	183705.	-241586.		
MONTHLY	SUMMARY (DEC)						
MN	1600.	0.000	0.000	0.	-379735.		
MX	391747.	1.882	4.496	332132.	٥.		
SM	56572384.	6.856	2202.942	147175408.	0. -186094736.		
AV	76038.	0.009	2.961	197816.			
YEARLY	SUMMARY						
MIN	1600.	0.000	0.000	0.	-379735.		
MIX	433604.	24.387	4.496	347182.	0.		
SM	277500992.	19197.025	25423.750	1572674816.	-2147685375.		
AV	31578.	2.191	2.902	179529.	-245170.		

DE	ENTECH ENGINADING, PA	EERING	EZDOE - E	LITE SOFTWARE	DEVELOPMENT INC			9:56: 3 SD	L RUN 1
SH-2	= HOU	RLY-REPORT				BUILDING 27			8 1- 1
MMDDHH			AC_3_8		AC_3_8		AC-1_2		
	HEATING GAS	COOLING ELECTRIC	SUPPLY ELECTRIC	COOLING CAPACITY	HEATING CAPACITY BTU/HR	HEATING GAS	COOLING ELECTRIC	SUPPLY ELECTRIC	
	(45)	(47)	(49)	(70)	(78)	(45)	(47)	(49)	
	Y SUMMARY (JAN)								
MIN	1600.	0.000	0.000	0.	-675339.	1600.	0.000	0.000	
MX	517776.	5.532	6.171	546417.	-675339. 0.	640399.	3.071	6.590	
SM	47504840.	207.400	3017.815	234180016.	-330240640.	82377588.	23.554	3202.886	
AV	63851.	0.279	4.056	314758.	-330240640. -443872.	110723.	0.032	4.305	
MONTHL	Y SUMMARY (FEB)								
.41N	1600.	0.000	0.000	0.	-675339. 0. -300525728.	1500.	0.000	0.000	
MX	483352.	4.844	6.171	540233.	0.	634972.	3.089		
SM	39730540.	208.324	2746.273	208965952.	-300525728.	66550208.	3.089 31.020	2906 323	
AV	59123.	0.310	4.087	310961.	-447211.	99033.	0.046		
MONTHLY	Y SUMMARY (MAR)								
MN	1600.	0.000	0.000	0.	-575339.	1600	0.000	0.000	
MX	406607.	7.105	6.171	498977.	0.	574316	3 452	6 500	
SM	21550248	513.649	2912.902	212196096	-318759877	39431398	102 172	2007 141	
AV	28965.	0.690	3.915	285210.	-675339. 0. -318759872. -428441.	52999.	0.146	4.163	
MONTEUT	יי מממשאמט (מחמ								
MN	1600.	0.000	0.000	0.	-675339.	7.500	0.000	0.000	
MX	286899.	6.740	6.171	536677.	3	35.270	3 000	6.500	
SM	5573587	426.426	2777 131	196426928	-303902400	13456864	121 247	2065 625	
AV	9269.	0.592	3.857	272815.	0. -303902400. -422087.	18590.	0.168	4.119	
MONTHL	Y SUMMARY (MAY)								
MN	1600.	0.000	0.000	0.	-675339	- 400	2 000	0.000	
MX	188994.	21.025	6.171	471238.	a .	745408	71 306	6.500	
SM	5418397.	3444.591	3030.158	203324016.	-331591296	9846711	7970 230	3205 150	
AV	7283.	4.630	4.073	273285.	-675339. 0. -331591296. -445687.	13234.	3.992	4.429	
MONTHL	Y SUMMARY (JUN)								
MN	1600.	0.000	0.000	0.	-675339.	1600	0.000	0.000	-
MX	18838.	31.594	6.171	471593	0.	90738	32 726	6 590	
SM	1169239.	6183.779	2777.131	178135760	-303902400	1489873	5010 972	2978 216	
AV	1624.	8.589	3.857	247411.	-675339. 0. -303902400. -422087.	2369.	3.349	4.137	
MONTHL	Y SUMMARY (JUL)								
MN	1600	0.000	0.000	٥.	-675339.	1600.	0.000	0.000	
MX	1600.	33.625	6.171	497134	0	1500.	34 611	6 590	
SM	1190400.	6964.404	2869.702	185331184	0. -314032480.	1190400	5974 867	3064 490	
AV	1600.	9.361	3.857	249101	-422087.	1400	9.308	4 110	
		2.202	2.25,			_200.	7.208	4.119	

EZDOE - ELITE SOFTWARE DEVELOPMENT INC ENTECH ENGINEERING DOE-2.1D 6/12/1996 9:56: 3 SDL RUN 1 FT. GEORGE G. MEADE BUILDING 2790 - NEW SH-2 = HOURLY-REPORT PAGE 2- 1 .... AC\_3\_8 AC\_3\_8 AC\_3\_8 AC\_3\_8 AC\_3\_8 AC-1\_2 AC-1\_2 AC-1\_2 HEATING COOLING SUPPLY COOLING HEATING HEATING COOLING SUPPLY GAS ELECTRIC ELECTRIC CAPACITY CAPACITY GAS ELECTRIC ELECTRIC BTU/HR KW KW BTU/HR BTU/HR BTU/HR ----(45) ---- (47) --- (49) ---- (70) ---- (78) ----(45) ---- (47) ---- (49) MONTHLY SUMMARY (AUG) 1600. 71761. 0.000 0.000 Ο. -675339. 1600 0.000 0.000 ΜX 32.976 6.171 477912. 0. 109352. 32.716 6.590 SM 1544665. 6888.358 2875.873 185021424. -314707840. 1903601. 6872.270 3077.670 248685. ΑV 2076. 9.259 3.865 -422994. 2559. 4.137 MONTHLY SUMMARY (SEP) 1600. 78355. 0.000 MNI 0.000 ٥. -675339. 1600. 0.000 0.000 27.201 484060. MX 6.171 0. 118784. 28.875 6.590 1966173. 4667.460 2826.502 185062496. -309305088. 3601860. 4420.860 3051.309 ΑV 2731. 6.483 3.926 257031. -429590. 5003. 6.140 4.238 MONTHLY SUMMARY (OCT) 1600. 0.000 0.000 0. -575339. 1600. 0.000 0.000 MX 221059. 16.363 6.171 478065. 0. 329072. 15.151 6.590 -328889952. SM 7201174. 1916.218 3005.472 205952448. 13305519. 1381.286 3242.428 ΑV 9679. 2.576 4.040 276818. -442056 17884. 1.857 4.358 MONTHLY SUMMARY (NOV) 1600. 415911. 0. 0.000 MN 0.000 -675339. 1600. 0.000 0.000 9.449 6.171 516783. 0. 548730. 3.414 6.590 SM 16102872. 417.211 2826.502 206405344. -309305088. 32122748. 47.155 3018.358 3.926 44615. ΑV 22365. 0.579 286674. -429590. 0.065 4.192 MONTHLY SUMMARY (DEC) -675339. MN 1600. 0.000 0.000 1600. 0.000 0.000 405679. МX 5.960 518105. 0. -331591296. 6.171 575705. 3.295 6.590 37766448. 142.938 3030.158 230077184. 70185288. 12.796 3209.476 ΑV 50761. 0.192 4.073 309244. -445687. 94335. 0.017 4.314 YEARLY SUMMARY 1600. 517775. MN 0.000 0.000 -675339. 1600. 0.000 0.000 33.625 31980.758 6.171 34695.617 MX 546417. 0. 640399. 34.611 6.590 187818576. 2431078912. -3796753920. SM 335461472. 28924.691 37109.984 ΔV 21440. 3.651 277520. -433419. 38295. 3.302

RE.	ENTECH E ADING,	ENG INE PA	ERING 19603	EZDOE - E FT. GEORG	LITE SOFTWARE I E G. MEADE		DOE-1 BUILDING 2		9:56: 3 SDL RUN
									PAGE 1-
						AC_EXP	AC_EXP	AC_EXP	
	COOLING		HEATING	HEATING	COOLING	SUPPLY	COOLING	HEATING	
	CAPACITY	č	CAPACITY	GAS	ELECTRIC	ELECTRIC	CAPACITY	CAPACITY	
	BTU/HR		BTU/HR	BTU/HR	KW	SUPPLY ELECTRIC KW	BTU/HR	BTU/HR	
	(70)	•	(78)	(45)	(47)	(49)	(70)	(78)	
MONTHL	Y SUMMARY	(JAN)	•						
MN		0.	-556719.	1600.	0.000	0.000	0.	-521332.	
MX	57349	9.	٥.	612508.	0.000	6.171	470959.	0.	
SM	21742854	14.	-270565440.	124461520.	0.000	3023.987	204536176.	-255452880.	
ΑV	29224	13.	-363663.	167287.	0.000	0.000 6.171 3023.987 4.064	274914.	-343351.	
MONTHL	Y SUMMARY	(FEB)							
MN		0.	-556719.	1600.	0.000	0.000	0.	-521332.	
MX	50306	6.	0.	613932.	0.024	6.171	470959.	0.	
SM	19326750	)4.	-245513088.	108932480.	0.024	2777.131	184123104.	-234599552.	
λV	28760	00.	-365347.	162102.	0.000	0.000 6.171 2777.131 4.133	273993.	-349106.	
MONTHL	Y SUMMARY (	(MAR)							
MN		0.	-556719.	1600.	0.000	0.000	٥.	-521332.	
MX	51439	8.	٥.	608037.	1.075	6.171	434992.	0.	
SM	19789012	28.	-261657920.	80811968.	3.548	2919.073	185365904.	-246590192.	
AV	26598	31.	-351691.	108618.	0.005	0.000 6.171 2919.073 3.923	249148.	-331438.	
MONTHL	Y SUMMARY	(APR)							
MN		0.	-556719.	1600.	0.000	0.000 6.171	0.	-521332.	
MX	55828	39.	0.	480296.	2.474	6.171	424795.	G.	
SM	18431876	8.	-250523552.	37039580.	41.220	2777.131	169103264.	-234599552.	
AV	25599	98.	-347949.	51444.	0.057	6.171 2777.131 3.357	234866.	-325833.	
MONTHL	Y SUMMARY (	(MAY)							
MN		0.	-556719.	1600.	0.000	0.000	0.	-521332.	
ХM	50348	39.	0.	306308.	13.085	6.171	410811.	0.	
SM	19318657	76.	-278359520.	25395696.	1245.583	0.000 6.171 3320.214	195701264.	-280476832.	
AV	25965	59.	-374139.	34134.	1.674	4.463	263039.	-376985.	
MONTHL	Y SUMMARY (	(JUN)							
MM;	_	0.	-556719.	1600.	0.000	0.000	0.	-521332.	
MΧ	43503	32.	0.	125830.	26.163	6.171	405617.	0.	
SM AV	16674360 23158	00. 88.	-251636992. -349496.	4707136. 6538.	3737.143 5.190	0.000 6.171 2894.387 4.020	164542016. 228531.	-244504896. -339590	
MIN	Y SUMMARY (	0.	-556719.	1600.	0.000	0.000	n	-521332	
MX	46011	1.	٥.	38616	30.544	6.171	434171	- 322332.	
SM	17280924	8.	-258874336.	1433384.	4691.854	2869.702	164144256	-242419536.	
AV	23227	1.	-347949.	1927.	6.306	6.171 2869.702 3.857	220624.	-325833.	

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC 9:56: 3 SDL RUN 1 DOE-2.1D 6/12/1996 PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW SH-2 PAGE 2- 2 AC-1\_2 AC-1\_2 AC\_EXP AC EXP AC\_EXP AC\_EXP AC\_EXP COOLING HEATING HEATING COOLING SUPPLY COOLING HEATING CAPACITY CAPACITY GAS ELECTRIC ELECTRIC CAPACITY CAPACITY BTU/HR BTU/HR BTU/HR KW KW BTU/HR BTU/HR ---- (70) ---- (78) ---- (45) ---- (47) --- (70) ---- (78) MONTHLY SUMMARY (AUG) o . 442427. MN -556719. 1600. 0.000 0.000 ٥. -521332. MX 411484. 0. 137856. 27.313 6.171 0. 172575664. -259987776. 3505359. 4543.886 -247111536. 2925.244 166474976. ΑV 231957. -349446. 4712. 6.107 3.932 223757. -332139. MONTHLY SUMMARY (SEP) ٥. -556719. 1600. 0.000 0.000 MX 489803. 0. 161715. 19.805 415466. 6.171 0. -255974208. -257760912. SM 174711323. 9453492. 2478.885 3030.158 174279600. ΑV 242655. -358001. 13130. 3.443 4.209 242055. -355520. MONTHLY SUMMARY (OCT) 0.000 MN 0. -556719. 1600. 0.000 0. -521332. 468083. 431449. ٥. 9.508 5.171 416762. 0. -273905760. 195301088. 31439546. 420.231 3165 929 189220096. -267443504. 237 262501. -368153. 42257. 0.565 254328. 4.255 -359467. MONTHLY SUMMARY (NOV) 0.000 MN -556719. 1600. 0.000 a -521332. 507686. MX 0. -254977312. 615245. 0.259 6.171 424795. 0. SM 193981920. 61184660. 0.652 2851.187 180293975. -240855536. ΑV 269419. -354135. 84979. 0.001 3.960 250415. MONTHLY SUMMARY (DEC) 0.000 -556719. e. 1600. 0.000 ٥. 512330. 0. -271122176. мx 606315. 0.000 451668. 5.171 213095584. SM 111491816. 0.000 3036.329 200898320. -256495520. 286419. 4.081 -364412. 149855. 0.000 -344752. YEARLY SUMMARY -556719. 0. MN 0.000 1600. 0.000 -521332.

573499.

259739.

2275309824. -3134884864.

SM

0.

-357864.

615245.

68477.

599856640.

30.544

1.959

17163.027

5.171 35590.473

470959.

248709.

2178638000. -3006523904.

-343211.

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:56: 3 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW
REPORT- PV-A EQUIPMENT SIZES REPORT- PV-A EQUIPMENT SIZES WEATHER FILE- BALTIMORE, MD

NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER SIZE INSTD SIZE I

HW-BOILER 0.000 1 1

SITE ENERGY \* SOURCE 2 3 4 5 6 8 9 10 11 12 13 14 TOTAL TOTAL TOTAL WASTED FUEL TOTAL \* ELEC FUEL ELEC FUEL. TOTAL TOTAL RCVRABL INPUT INPUT INPUT INPUT INPUT FUEL. SITE SOURCE MONTH LOAD LOAD LOAD ENERGY ENERGY COOLING COOLING HEATING HEATING ELECT INPUT ENERGY ENERGY ----JAN 0.0 343.2 0.0 0.0 0.0 710.8 \* 367.6 0.0 1398.2 100.5E 0.0E 0.0E 304.4 FEB 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 312.6 617.0 \* 1226.7 89.1E 0.0E 0.0E 349.5 MAR 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 197.0 546.5 1246.7 102.4E 0.0E 0.0E 342 1 APR 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 79.6 421.8 1107.1 100.2E 0.0E 0.0E MAY 0.0 0.0 410.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 60.8 471.1 \* 1292.9 120.2E 0.0E 0.0E JUN 0.0 474.1 0.0 0.0 0.0 0.0 0.0 0.0 18.1 492.2 -1442.0 138.9E 0.0E 0.0E JUL 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 14.5 499.1 \* 1469.3 141.9E 0.0E 0.05 AUG 0.0 0.0 504.2 0.0 0.0 0.0 0.0 0.0 0 0 0.0 13.3 522.5 \* 1532.5 147.7E 0.0E 0.0E 0.0 434.3 SEP 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 27.3 461.7 \* 1331.6 127.2E 0.0E 0.0E 0.0 379.4 OCT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 75.1 1214.5 111.1E 0.0E 0.0E NOV 0.0 321.9 0.0 0.0 0.0 0.0 0 0 0.0 0.0 1119.2 94.3E 0.0E 0.0E DEC 0.0 0.0 342.4 0.0 0.0 0.0 0.0 0.0 0.0 1339.6 100.3E 0.0E 0.0E 4690.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1634.8 6325.4 \* 15720.6

0.0E

0.0E

NOTE-- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES FOLLOWED BY E ARE IN MWH (THOUSANDS OF KWH)

1373.7E

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:56: 3 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW
REPORT- PS-B MONTHLY PEAK AND TOTAL ENERGY USE WEATHER FILE- BALTIMORE. MD

UTILITY-ELECTRICITY FUEL-OIL MO NATURAL-GAS TOTAL (MBTU) 343.195 0.000 367.560 JAN PEAK (KBTU) 929.193 0.000 3430.472 DY/HR 14/19 31/24 31/ 7 TOTAL (MBTU) 304.392 0.000 312.646 FEB PEAK (KBTU) 922.058 0.000 3252.151 DY/HR 2/19 28/24 14/ 7 TOTAL (MBTU) 349.545 0.000 196.974 MAR PEAK (KBTU) 916.034 0.000 2941.520 DY/HR 18/15 31/24 7/7 TOTAL (MBTU) 342.139 0.000 79.520 APR PEAK (KBTU) 1036.890 0.000 1765.213 DY/HR 19/19 30/1 9/ 7 TOTAL (MBTU) 410.287 0.000 60.326 MAY PEAK (KBTU) 1349.570 0.000 1096.534 DY/HR 21/18 31/ 1 10/5 TOTAL (MBTU) 474.145 0.000 18.097 JUN PÉAK (KBTU) 1572.944 0.000 232.568 DY/HR 27/17 30/1 1/5 TOTAL (MBTU) 484.605 0.000 JUL PEAK (KBTU) 1619.108 0.000 56.216 DY/HR 25/17 31/ 1 21/ 7 TOTAL (METII) 504.222 0.000 13.276 PEAK (KBTU) 1597.791 AUG 0.000 291.764 DY/HR 18/17 31/ 1 21/ 7 TOTAL (MBTU) 434.318 0.000 27.348 PEAK (KBTU) 1495.148 0.000 383.393 DY/HR 1/17 30/ 1 TOTAL (MBTU) 379.436 0.000 75.058 OCT PEAK (KBTU) 1251.967 0.000 1463.531 DY/HR 13/17 31/24 24/ 7 TOTAL (MBTU) 321.900 0.000 152.495 NOV PEAK (KBTU) 1087.008 0.000 2811.089 DY/HR 2/19 30/24 25/ 7 TOTAL (MBTU) 342.381 0.000 311.410 PEAK (KBTU) DEC 927.395 0.000 2863.568 12/ 7 DY/HR 22/19 31/24 ONE YEAR 4690.565 0.000 1634.338

1619.108

0.000

3430.472

USE/PEAK

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:56: 3 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW
REPORT- PS-D PLANT LOADS SATISFIED REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

> MBTU SUPPLIED ELECTRICAL LOADS PCT OF TOTAL LOAD ------ELECTRICITY 4690.6 \*========= LOAD SATISFIED TOTAL LOAD ON PLANT 4690.6 100.0 4690.5

SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
ELECTRICAL LOADS	4690.5	4690.6	0.000	0.000	0

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:56: 3 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW
REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER FILE- BALTIMORE, MD

	AVG	MAX	MON					
EQUIPMENT	OPER	LOAD	DAY	SIZE OPER		SIZE OPER	SIZE OPER	SIZE OPER
	RATIO	(MBTU)	HR	(MBTU) HRS				
UN-BOTT ED	0.000	0 000	0 0 0	0.000				

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:56: 3 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW
REPORT- PS-I EQUIPMENT LIFE CYCLE COSTS WEATHER FILE- BALTIMORE, MD

Ε	Q	Ū	I	P	М	Ε	N	T	Т	0	Т	Α	Ł	S

HW-BOILER			0.1		
	L SIZE	(MBTU)			0.000
NUMBER	INSTAL	LED			1
FIRST	COST	(K\$)		0.0	0.0
ANNUAL	COST	(K\$)		0.1	0.1
CACTIC	AL COST	(K\$)		0.0	0.0
T	OTAL	- (K\$)			0.1
EQUIPMENT T	OTAL		0.1		

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/12/1996 9:56: 3 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE BUILDING 2790 - NEW
REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE WEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE MBTU - ELECTRICITY FUEL-OIL NATURAL-GAS CATEGORY OF USE SPACE HEAT 0.00 0.00 1634.84 SPACE COOL 733.96 0.00 0.00 HVAC AUX 781.96 0.00 0.00 DOM HOT WTR 0.00 0.00 0.00 AUX SOLAR 0.00 0.00 0.00 2778.64 LIGHTS 0.00 0.00 VERT TRANS 0.00 0.00 0.00 MISC EOUIP 396.18 0.00 0.00 TOTAL 4690.75 0.00 1634.84

TOTAL SITE ENERGY 6325.40 MBTU 80.7 KBTU/SQFT-YR GROSS-AREA 80.7 KBTU/SQFT-YR NET-AREA TOTAL SOURCE ENERGY 15720.62 MBTU 200.5 KBTU/SQFT-YR GROSS-AREA 200.5 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 0.3 PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.0

NOTE ELECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

# FT. MEADE, MARYLAND

Building:

2793

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Brick	0.44
Air Space	1.10
Plywood	0.93
3 1/2" Batt Insulation	11.00
Drywall	0.56
Inside Surface	0.68
Total R-Value	14.88
Total U-Value	0.07

Calculated Total Area	
No. of Floors	2
Avg. Floor to Floor Height	9
No. of Basement Levels	
Gross Floor Area	26246
Roof Area	12375
Estimated Infiltration (cfm)	500
Gross Wall Area	10080
Door Area	63
Gross Window Area	744
Other	
Net Wall Area	9273

Square feet 26,246

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Shingles	0.44
Plywood	0.93
Air Space	1.10
6" Batt Insulation	19.00
Gyp Board	0.56
Inside Surface	0.61
Total R-Value	22.81
Total U-Value	0.04

Window and Door	
	U-Value
Window Single Pane W/Storm	
Window Single Pane Wo/Storm	
Window Double Pane	0.55
Skylight	
Glass Block	
Other	
Door Type 1	0.60
Door Type 2	
Door Type 3	
_	

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

**BUILDING NO. 2793** 

Page 1 of 1

EQUIPMENT				SYSTEM	SYSTEM NUMBER			
	1	2	က	4	5	9	7	8
Equipment Name	PTAC							
COOLING:								
Type of Cooling								
Air Side								
Location in Building	Each Room							
Area Sq. Feet								
Supply CFM								
Supply Fan HP								
O.A. CFM or %								
Return CFM								
Return Fan HP								
Chiller Tonnage	9.0							
Tower or Condenser Fan HP								
Condenser Pump HP								
Chilled Water Pump HP								
HEATING:								
Type of Heating								
Source								
МВТИН	6300							
Hot Water Pump HP			The state of the s					
Condensate Pump HP								
ADDITIONAL:								
Aux. HP Cooling						AL DANS		
Aux. HP Heating								
Operating Schedule Hrs./Week								
	I ype or Cooling					Type of Heating	D	
(1) Air Cooled DX	(4) Water Cooled	d Chiller		(1) Boiler Hot Water	ater		(4) Furnace	
(2) Water Cooled DX	(5) Central Plant Supplied	Supplied		(2) Boiler Steam				
(3) Air Cooled Chiller	(6) Other			(3) Steam to Ho	(3) Steam to Hot Water Converter	<b>.</b>		
	Air Side				Í	Heating Source	9	
(1) Single Zone	(4) VAV w/ Rehea	at		(1) Natural Gas			(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	ume Reheat		(2) Central Plant Steam	t Steam		(5) Electric	
(3) VAV	(6) Heating and Ventilating	Ventilating		(3) Central Plant Hot Water	t Hot Water			
G:PROJECTSW130.07/SS/2793/EQUIPMNT.WK4								

G.PROJECTSM130.07/SSQ703/EQUIPMNT.WK4

## FT. MEADE, MARYLAND

**Building:** 

2812

Square	foot	
Suuaie	ieei	

4,720

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Wood Siding	0.93
Air Space	1.10
Gyp. Board	0.56
Inside Surface	0.68
Total R-Value	3.44
Total U-Value	0.29

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Shingles	0.44
Wood Deck	0.93
Air Space	1.10
Gyp. Board	0.56
Inside Surface	0.61
Total R-Value	3.81
Total U-Value	0.26

Calculated Total Area	
No. of Floors	2
Avg. Floor to Floor Height	9
No. of Basement Levels	
Gross Floor Area	4720
Roof Area	2400
Estimated Infiltration (cfm)	630
Gross Wall Area	3960
Door Area	40
Gross Window Area	470
Other	
Net Wall Area	3450

Window and Door	
	U-Value
Window Single Pane W/Storm	0.60
Window Single Pane Wo/Storm	
Window Double Pane	
Skylight	
Glass Block	
Other	
Door Type 1	0.50
Door Type 2	
Door Type 3	

UoAo = (3450\*0.29) + (2400\*0.26) + (40\*0.5) + (470\*0.6) = 1931.5

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

**BUILDING NO. 2812** 

Page 1 of 1

EQUIPMENT			:	SYSTEM	SYSTEM NUMBER			
	Ψ-	2	3	4	2	9		8
Equipment Name	Furnace	CU-1	CU-2					
COOLING:								
Type of Cooling								
Air Side								
Location in Building								
Area Sq. Feet								
Supply CFM	4300							
Supply Fan HP	1.5							
O.A. CFM or %	%0		-					
Return CFM								
Return Fan HP								
Chiller Tonnage		7 1/2	7 1/2					
Tower or Condenser Fan HP								
Condenser Pump HP			Market a summer as the state of					
Chilled Water Pump HP		THE REAL PROPERTY AND ADDRESS OF THE PERSON NAMED IN COLUMN 1						
HEATING:								
Type of Heating	4							
Source						77		
МВТИН	490/392							
Hot Water Pump HP								
Condensate Pump HP			100 to 10					
ADDITIONAL:								
Aux. HP Cooling								
Aux. HP Heating		44.4						
Operating Schedule Hrs./Week								
			77 4471					
Туре	Type of Cooling					Type of Heating	٥	
	(4) Water Cooled Chiller	l Chiller		(1) Boiler Hot Water			(4) Furnace	9.4
(2) Water Cooled DX	(5) Central Plant Supplied	Supplied		(2) Boiler Steam				
(3) Air Cooled Chiller	(6) Other			(3) Steam to Ho	(3) Steam to Hot Water Converter	_		
	Air Side				Ĭ	Heating Source	9	
(1) Single Zone	(4) VAV w/ Reheat	at		(1) Natural Gas			(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	ıme Reheat		(2) Central Plant Steam	Steam		(5) Electric	
(3) VAV	(6) Heating and Ventilating	/entilating		(3) Central Plant Hot Water	Hot Water			
G:PROJECTSW130.07\SS\2812\EQUIPMNT.WK4								

#### EMCS Annual Energy Savings Summary Report

Base: FTMEADE Building: 2812

Case: 1

Description: ADMINISTRATIVE

Fuel Type: Natural gas (methane) Heating Value: 1,031 Btu/cf

#### Caution

The ESA program makes no attempt to exclude incompatible strategies.

It is the user's responsibility to select all appropriate strategies.

#### Annual Energy Savings Table for Direct Fired Furnace

Description: GAS FIRED FURNA	ACE			
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Run Time Recording Safety Alarm	58.533 0.000 0.000	0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	58.533 1,031	0 Btu/cf	0.0	4
Totals	56,773 cf/yr	0 kWh/yr	0.0 kW	4 mh/yr

#### Annual Energy Savings Table for Air Cooled DX Compressor

Description: AIR CONDITIONE	irs			
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop	0.000	294	0.0	0
Run Time Recording	0.000	0	0.0	2
Safety Alarm	0.000	0	0.0	2
Totals	0.000	294	0.0	4
	MBtu/yr	kWh/yr	kW	mh/yr

Annual Energy Savings Table for Lighting Control

Description: LIGHTING				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Lighting Control	0.000	11,232	0.0	0
Totals	0.000 MBtu/yr	11,232 kWh/yr	0.0 kW	0 mh/yr

EMCS Annual Energy Savings for Building 2812

Description	Value	Units
Natural gas (methane) Electrical Energy Electrical Demand Reduction	56,773 11,526	cf/yr kWh/yr kW
Labor Savings	8	mh/yr

# FT. MEADE, MARYLAND

Building:

3000

Square feet	10.	863
-------------	-----	-----

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Vinyl Siding	0.50
1/2" Insulation	2.00
Wood Siding	0.79
Air Space	1.10
Gyp Board	0.56
Inside Surface	0.68
Total R-Value	5.80
Total U-Value	0.17

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Shingles	0.44
Wood Deck	0.93
6" Batt Insulation	19.00
Air Space	1.10
Gyp Board	0.56
Inside Surface	0.61
Total R-Value	22.81
Total U-Value	0.04

Calculated Total Area	
No. of Floors	1
Avg. Floor to Floor Height	25
No. of Basement Levels	1
Gross Floor Area	10863
Roof Area	10863
Estimated Infiltration (cfm)	4500
Gross Wall Area	12500
Door Area	250
Gross Window Area	400
Other	
Net Wall Area	11850

Window and Door	
	U-Value
Window Single Pane W/Storm	1.00
Window Single Pane Wo/Storm	
Window Double Pane	
Skylight	
Glass Block	
Other	
Door Type 1	1.00
Door Type 2	
Door Type 3	

UoAo = (11850\*0.17) + (10863\*0.04) + (250\*1.0) + (400\*1.0) = 3097

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

BUILDING NO. 3000

Page 1 of 1

EQUIPMENT				SYSTEM NUMBER	VUMBER			
		2	က	4	5	9	7	8
Equipment Name	AHU-1	Boiler						
COOLING:								
Type of Cooling	-							
Air Side	-							
Location in Building								
Area Sq. Feet	10863							
Supply CFM	20000							
Supply Fan HP	5							
O.A. CFM or %	20%							
Return CFM								
Return Fan HP	-							
Chiller Tonnage	70							
Tower or Condenser Fan HP								
Condenser Pump HP								
Chilled Water Pump HP								
HEATING:								
Type of Heating		7						
Source		-		:				
МВТОН		3313/2650			THE PARTY AND PA			
Hot Water Pump HP						The same and the s		
Condensate Pump HP		1/3						
ADDITIONAL:								
Aux. HP Cooling								
Aux. HP Heating					,			
Operating Schedule Hrs./Week								
Type	Type of Cooling				ŕ	110 06 Uses		
(4) Air Cooled DV	(4) W-4-0					I ype oi neauiig		
	(4) water Cooled Chiller			(1) Boller Hot Water	ater		(4) Furnace	
(2) Water Cooled DX	(5) Central Plant	t Supplied		(2) Boiler Steam				
(3) Air Cooled Chiller	(6) Other			(3) Steam to Hot Water Converter	Water Converte	).		
	Air Side				Í	<b>Heating Source</b>	9	
(1) Single Zone	(4) VAV w/ Reheat	eat		(1) Natural Gas			(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	fume Reheat		(2) Central Plant Steam	Steam		(5) Electric	
(3) VAV	(6) Heating and Ventilating	Ventilating		(3) Central Plant Hot Water	Hot Water			
G.PROJECTSM130.07/SS13000/EQUIPMNT.WK4								

#### EMCS Annual Energy Savings Summary Report

Base: FTMEADE Building: 3000

Case: 1

Description: DPW OPERATIONS

Fuel Type: Natural gas (methane) Heating Value: 1,031 Btu/cf

#### Caution

#### Annual Energy Savings Table for Single Zone AHU

Description: AHU-1				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Demand Limiting Day/Night Setback Vent/Recirculation Run Time Recording Safety Alarm	0.000 413.221 63.685 0.000 0.000	0 1,317 0 0 0	0.7 0.0 0.0 0.0 0.0	0 0 0 0 2 2
Subtotals Heating Value /	476.906 1,031	1,317 Btu/cf	0.7	4
Totals	462,567 cf /yr	1,317 kWh/yr	0.7 kW	====== 4 mh/yr

Annual Energy Savings Table for Air Cooled DX Compressor

Description: DX AIR COOLED	CHILLER			
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Demand Limiting Run Time Recording Safety Alarm	0.000	4,415	0.0	0
	0.000	0	0.7	0
	0.000	0	0.0	2
	0.000	0	0.0	2
Totals	0.000	4,415	0.7	4
	MBtu/yr	kWh/yr	kW	mh/yr

EMCS Annual Energy Savings for Building 3000

/	-	:======= <sup>\</sup>
Description	Value	Units
Natural gas (methane) Electrical Energy Electrical Demand Reduction	462,567 5,732 1.5	cf /yr kWh/yr kW
Labor Savings	8 	mh/yr =========

# ATTACHMENT SECTION 8.2C BUILDINGS 4215 TO 4471

Entech Engineering, Inc.

## FT. MEADE, MARYLAND

Building:

4215

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Face Brick	0.44
Concrete Block	1.72
Air Space	1.10
Plaster	0.56
Inside Surface	0.68
Total R-Value	4.67
Total U-Value	0.21

Square feet 74,059
--------------------

Exteri	or Roof	
Components	3	R-Value
Outside Surface		0.17
Shingles		0.44
Wood Deck		0.93
3" Batt Insulation		11.00
Air Space		1.10
Plaster		0.56
Inside Surface		0.61
	Total R-Value	14.81
	Total U-Value	0.07

Calculated Total Area	
No. of Floors	3
Avg. Floor to Floor Height	14
No. of Basement Levels	1
Gross Floor Area	74059
Roof Area	18770
Estimated Infiltration (cfm)	11900
Gross Wall Area	40220
Door Area	250
Gross Window Area	2950
Other	
Net Wall Area	37020

Window and Door	
	U-Value
Window Single Pane W/Storm	0.60
Window Single Pane Wo/Storm	
Window Double Pane	
Skylight	
Glass Block	
Other	
Door Type 1	0.50
Door Type 2	
Door Type 3	

 $U_0A_0 = (37020 * 0.21) + (18770*0.07) + (2950*0.6) + (250*0.5) = 10983$ 

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

BUILDING NO. 4215

Page 1 of 1

					OISILM NOMBLE			
	_	2	3	4	9	9	7	&
Equipment Name	Boiler	Boiler	Chiller	Fan Coils				
COOLING:								
Type of Cooling			က					
Air Side								
Location in Building								
Area Sq. Feet								
Supply CFM								
Supply Fan HP				09				
O.A. CFM or %								
Return CFM								
Return Fan HP								
Chiller Tonnage			125					
Tower or Condenser Fan HP								
Condenser Pump HP								
Chilled Water Pump HP			7 1/2					
HEATING:								
Type of Heating	1	1						
Source	_	-						
МВТИН	2022	2052						
Hot Water Pump HP	7 1/2							
Condensate Pump HP								
ADDITIONAL:								
Aux. HP Cooling								
Aux. HP Heating								
Operating Schedule Hrs. Week								
	Type of Cooling					Type of Heating	ß	
(1) Air Cooled DX	(4) Water Cooled Chiller	oled Chiller		(1) Boiler Hot Water	ater		(4) Furnace	
(2) Water Cooled DX	(5) Central P	(5) Central Plant Supplied		(2) Boiler Steam	_		•	
(3) Air Cooled Chiller	(6) Other			(3) Steam to Ho	(3) Steam to Hot Water Converter	ə		
Color Color	Air Side				I	Heating Source	a	
(1) Single Zone	(4) VAV w/ Reheat	teheat		(1) Natural Gas			(4) Oil	
(2) Multi-Zone	(5) Constant	(5) Constant Volume Reheat		(2) Central Plant Steam	t Steam		(5) Electric	
(3) VAV	(6) Heating a	(6) Heating and Ventilating		(3) Central Diant Hot Water	t Hot Water			

### EMCS Annual Energy Savings Summary Report

Base: FTMEADE
Building: 4215
Case: 1

Description:

Fuel Type: Natural gas (methane) Heating Value: 1,031 Btu/cf

#### Caution

# Annual Energy Savings Table for Two Pipe Fan Coil Unit

Description: Fan Coil Units	s 		========	
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Run Time Recording Safety Alarm	1,220.897 0.000 0.000	2,645 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	1,220.897 1,031	2,645 Btu/cf	0.0	4
Totals	1,184,187 cf /yr	2,645 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Hot Water Boiler

Description: B-1				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Hot Water OA Reset Run Time Recording Safety Alarm	351.771 0.000 0.000	0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	351.771 1,031	0 Btu/cf	0.0	4
Totals	341,194 cf /yr	0 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Air Cooled Chiller

/=====================================		:======================================		======
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Chiller Water Reset Run Time Recording Safety Alarm	0.000	2,943	0.0	0
	0.000	5,220	0.0	0
	0.000	0	0.0	2
	0.000	0	0.0	2
Totals	0.000	8,163	0.0	4
	MBtu/yr	kWh/yr	kW	mh/yr

Annual Energy Savings Table for Lighting Control

Description: LIGHTING				======
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Lighting Control	0.000	165,360	0.0	0
Totals	0.000 MBtu/yr	165,360 kWh/yr	0.0 kW	0 mh/yr

30 May 1996 13:32:30

## 4215.SM1

# EMCS Annual Energy Savings for Building 4215

/		
Description	Value	Units
Natural gas (methane)  Electrical Energy	1,525,381 176,168	cf /yr kWh/yr
Electrical Demand Reduction Labor Savings	0.0 12	kW mh/yr
\		=======================================

## FT. MEADE, MARYLAND

Building:

4216

### Square feet 37,244

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Face Brick	0.44
Concrete Block	1.72
Air Space	1.10
Plaster	0.56
Inside Surface	0.68
Total R-	-Value 4.67
Total U-	-Value <b>0.21</b>

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Shingles	0.44
Wood Deck	0.93
3" Batt Insulation	11.00
Air Space	1.10
Plaster	0.56
Inside Surface	0.61
Total R-Value	14.81
Total U-Value	0.07

Calculated Total Area	
No. of Floors	3
Avg. Floor to Floor Height	14
No. of Basement Levels	1
Gross Floor Area	37244
Roof Area	9300
Estimated Infiltration (cfm)	4350
Gross Wall Area	18780
Door Area	170
Gross Window Area	900
Other	
Net Wall Area	17710

Window and Door	
	U-Value
Window Single Pane W/Storm	0.60
Window Single Pane Wo/Storm	
Window Double Pane	
Skylight	
Glass Block	
Other	
Door Type 1	0.50
Door Type 2	
Door Type 3	

UoAo = (17710 \* 0.21) + (9300\*0.07) + (900\*0.6) + (170\*0.5) = 4995.1

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

BUILDING NO. 4216

Page 1 of 1

EOLIBMENT				SYSTEM	SYSTEM NUMBER			
	-	2	3	4	2	9	7	8
Equipment Name	Boiler	Chiller	Fan Coils					
COOLING:		m		.1				
Type of Cooling								
Air Side								
Location in Building								
Area Sq. Feet								
Supply CFM								
Supply Fan HP			30					
O.A. CFM or %								
Return CFM								
Return Fan HP								
Chiller Tonnage		09						
Tower or Condenser Fan HP								
Condenser Pump HP								
Chilled Water Pump HP		3						
HEATING:								
Type of Heating	_							
Source	-							
мвтин	2100							
Hot Water Pump HP	_							
Condensate Pump HP								
ADDITIONAL:								
Aux. HP Cooling								
Aux. HP Heating								
Operating Schedule Hrs./Week								
	Type of Cooling					Type of Heating	gı	
(1) Air Cooled DX	(4) Water Cooled Chiller	d Chiller		(1) Boiler Hot Water	Vater		(4) Furnace	
(2) Water Cooled DX	(5) Central Plant Supplied	t Supplied		(2) Boiler Steam	E			
(3) Air Cooled Chiller	(6) Other			(3) Steam to H	(3) Steam to Hot Water Converter	ter		
	Air Side				-	Heating Source	Э¢	
(1) Single Zone	(4) VAV w/ Reheat	eat		(1) Natural Gas			(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	lume Reheat		(2) Central Plant Steam	nt Steam		(5) Electric	
(3) VAV	(6) Heating and Ventilating	Ventilating		(3) Central Plant Hot Water	nt Hot Water			
G.PROJECTSW130.07SSW216/EQUIPMNT.WK4								

G:PROJECTSW130.07\SSW216\EQUIPMNT.WK4

EMCS Annual Energy Savings Summary Report

Base: FTMEADE Building: 4216

Case: 1

Description: Administration

Fuel Type: Natural gas (methane) Heating Value: 1,031 Btu/cf

#### Caution

Annual Energy Savings Table for Two Pipe Fan Coil Unit

/=====================================	========	:====================================	=======	
Description: Fan Coil Units				======
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Run Time Recording Safety Alarm	434.445 0.000 0.000	1,076 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	434.445	1,076 Btu/cf	0.0	4
Totals	421,382 cf /yr	1,076 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Hot Water Boiler

Description: B-1	=========		=======	======
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Hot Water OA Reset Run Time Recording Safety Alarm	157.500 0.000 0.000	0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	157.500 1,031	0 Btu/cf	0.0	4
Totals	152,764 cf /yr	0 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Air Cooled Chiller

Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Chiller Water Reset Run Time Recording Safety Alarm	0.000 0.000 0.000 0.000	589 2,506 0	0.0 0.0 0.0 0.0	0 0 2 2
======================================	0.000 MBtu/yr	3,094 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Lighting Control

Description: Lighting				
Strategy	MBtu/yr	kWh/yr	k\\ k\	mh/yr
Lighting Control	0.000	78,000	0.0	0
Totals	0.000 MBtu/yr	78,000 kWh/yr	0.0 kW	0 mh/yr

30 May 1996 13:49:40

### 4216.SM1

# EMCS Annual Energy Savings for Building 4216

/		-========\
Description	Value	Units
Natural gas (methane)  Electrical Energy  Electrical Demand Reduction  Labor Savings	574,146 82,170 0.0 12	cf /yr kWh/yr kW mh/yr
\		/

## FT. MEADE, MARYLAND

Building:

4217

Square feet 34,548

Exterior Wall		Exterior Roof	
Components	R-Value	Components	R-Value
Outside Surface	0.17	Outside Surface	0.17
Face Brick	0.44	Shingles	0.44
Concrete Block	1.72	Wood Deck	0.93
Air Space	1.10	3" Batt Insulation	11.00
Plaster	0.56	Air Space	1.10
Inside Surface	0.68	Plaster	0.56
		Inside Surface	0.61
Total R-Value	4.67	Total R-Value	14.81
Total U-Value	0.21	Total U-Value	0.07
Calculated Total Area		Window and Door	
No. of Floors	3		U-Value
Avg. Floor to Floor Height	14	Window Single Pane W/Storm	0.60
No. of Basement Levels	1	Window Single Pane Wo/Storm	
Gross Floor Area	34548	Window Double Pane	
Roof Area	8900	Skylight	
Estimated Infiltration (cfm)	4150	Glass Block	
Gross Wall Area	12416	Other	
Door Area	100	Door Type 1	0.50
Gross Window Area	1000	Door Type 2	
Other		Door Type 3	
Net Wall Area	11316	_	

UoAo = (11316 \* 0.21) + (8900\*0.07) + (1000\*0.6) + (100\*0.5) = 3649.4

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

Page 1 of 1

**BUILDING NO. 4217** 

	-	2	3	4	5	9	7	8
Equipment Name	Boiler	Chiller	Fan Coils					
COOLING:		ო		,				
Type of Cooling				•				
Air Side								
Location in Building			_		•			:
Area Sq. Feet								
Supply CFM								
Supply Fan HP			30					· · ·
O.A. CFM or %	. :				:		1	
Return CFM							:	· .
Return Fan HP	e .							
Chiller Tonnage		20						:
Tower or Condenser Fan HP	-				,			
Condenser Pump HP								
Chilled Water Pump HP		9						
HEATING:						:		,
Type of Heating	-							
Source	<del>-</del>						-	
МВТИН	2520/2052	-		-				
Hot Water Pump HP	22							
Condensate Pump HP								
ADDITIONAL:								
Aux. HP Cooling								
Aux. HP Heating							,	
Operating Schedule Hrs. Week								i
			,					
Τy	Type of Cooling					ype of Heating	bu	
(1) Air Cooled DX	(4) Water Cooled	ed Chiller		(1) Boiler Hot Water	1		(4) Furnace	1
(2) Water Cooled DX	(5) Central Plant Supplied	nt Supplied		(2) Boiler Steam			`	
(3) Air Cooled Chiller	(6) Other	•		(3) Steam to Ho	(3) Steam to Hot Water Converter	er		
	Air Side				_	Heating Source	;e	
(1) Single Zone	(4) VAV w/ Rehea	leat		(1) Natural Gas	:		(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	olume Reheat		(2) Central Plant Steam	t Steam		(5) Electric	
(3) VAV	(6) Heating and Ventilating	Ventilating		(3) Central Plant Hot Water	Hot Water			

#### EMCS Annual Energy Savings Summary Report

Building: 4217
Case: 1
Description:

Fuel Type: Natural gas (methane)

#### Caution

# Annual Energy Savings Table for Two Pipe Fan Coil Unit

Description: Fan Coil Units \_\_\_\_\_\_ MBtu/yr kWh/yr kW mh/yr Strategy Day/Night Setback 416.569 1,354
Run Time Recording 0.000 0
Safety Alarm 0.000 0 0.0 0.0 0.0 Subtotals 416.569 1,354 Heating Value / 1,031 Btu/cf \_\_\_\_\_\_ Totals 404,044 1,354 cf /yr kWh/yr 0.0 4 kW mh/yr \_\_\_\_\_\_\_\_ Annual Energy Savings Table for Hot Water Boiler

Description: B-1			=======	=====
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Hot Water OA Reset Run Time Recording Safety Alarm	216.000 0.000 0.000	0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	216.000	0 Btu/cf	0.0	4
Totals	209,505 cf /yr	0 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Air Cooled Chiller

Description: CHILLER				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Chiller Water Reset Run Time Recording Safety Alarm	0.000 0.000 0.000 0.000	981 2,088 0 0	0.0 0.0 0.0	0 0 2 2
Totals	0.000 MBtu/yr	3,069 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Lighting Control

MBtu/yr	kWh/yr	kW	mh/yr
0.000	73,840	0.0	0
0.000 MBtu/yr	73,840 kWh/yr	0.0 kW	0 mh/yr
	0.000	0.000 73,840 	0.000 73,840 0.0 0.000 73,840 0.0

30 May 1996 13:50:58

4217.SM1

### EMCS Annual Energy Savings for Building 4217

/		
Description	Value	Units
Natural gas (methane)  Electrical Energy	613,549 78,263	cf /yr kWh/yr
Electrical Demand Reduction Labor Savings	0.0 12	kW mh/yr
\ <u></u>		

# FT. MEADE, MARYLAND

Building:

4411

Square feet	39,379
-------------	--------

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Brick	0.44
Air Space	1.10
Concrete Block	1.72
Plaster	0.56
Inside Surface	0.68
Total R-Value	4.67
Total U-Value	0.21

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Slate Roof	0.00
1" Insulation	4.00
Air Space	1.10
Acoustical Tile Clg	1.89
Inside Surface	0.61
Total R-Value	7.77
Total U-Value	0.13

Calculated Total Area	
No. of Floors	3
Avg. Floor to Floor Height	12
No. of Basement Levels	1
Gross Floor Area	39379
Roof Area	10030
Estimated Infiltration (cfm)	5000
Gross Wall Area	34400
Door Area	155
Gross Window Area	2565
Other	
Net Wall Area	31680

U-Value
1.00
1.00

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

BUILDING NO. 4411

Page 1 of 1

## 12 3 4 6 6 7 7 8 1	FOLIPMENT				SYSTEM	SYSTEM NUMBER			
AHU-1   AHU-2   AHU-4   AHU-6   Boiler   Boiler     3		-	2	က	4	2	9	7	8
1	Equipment Name	AHU-1	AHU-2	AHU-3	AHU-4	AHU-5	Boiler	Boiler	Chiller
1.12 Bant	COOLING:				-				
11	Type of Cooling	က	3	က	ო	က			က
12 Bsmt   12 Bsmt   13 Fir   2nd Fir   3nd F	Air Side	-	-	-	1	-			
## A 125	Location in Building	1/2 Bsmt	1/2 Bsmt	1st Fir	2nd Flr	3rd Fir			
3150   2650   10850   10850   5350	Area Sq. Feet	4725	4725	9446	9446	4887			
Control Plant Supplied	Supply CFM	3150	2650	10650	10850	5350			
20%   20%	Supply Fan HP	2	-	7 1/2	7 1/2	ည			
## Part	O.A. CFM or %	20%	20%	20%	20%	20%			
Name	Return CFM								
Natural Class   Constraint Volume Reheat   Constraint Volume Reheat   Constraint Volume Reheat   Constraint Polaries   Constraint Class   Constraint Class   Constraint Class   Constraint Plant Steam   Constraint Plant Steam   Constraint Volume Reheat   Constraint Plant Steam   Constraint Volume Reheat   Constraint Plant Steam   Constraint Plant How Water   Constraint Plant How Water	Return Fan HP								
Name	Chiller Tonnage								92
HP	Tower or Condenser Fan HP								
HP	Condenser Pump HP					-			
HP	Chilled Water Pump HP								2
1	HEATING:								
HP	Type of Heating						-	-	
HP	Source						-	1	
HP	МВТОН						2000	2000	
Type of Cooling	Hot Water Pump HP						2	2	
Liber Hrs./Week	Condensate Pump HP								
Lule Hrs. Week	ADDITIONAL:								
Uile Hrs. Week	Aux. HP Cooling								
Chiller	Aux. HP Heating								
Type of Cooling   Type of Cooling   Type of Heatin	Operating Schedule Hrs. Week								
Type of Cooling         Type of Heatin           DX         (4) Water Cooled Chiller         (1) Boiler Hot Water           led DX         (5) Central Plant Supplied         (2) Boiler Steam           Chiller         (3) Steam to Hot Water Converter           Air Side         Heating Sourc           (4) VAV w/ Reheat         (1) Natural Gas           (5) Constant Volume Reheat         (2) Central Plant Steam           (6) Heating and Ventilating         (3) Central Plant Hot Water									
(1) Boiler Hot Water Cooled Chiller	TVD	se of Cooling					vpe of Heati	a c	
Ed DX		(4) Water Cool	ed Chiller		(1) Boiler Hot V			(4) Furnace	
Chiller	(2) Water Cooled DX	(5) Central Pla	nt Supplied		(2) Boiler Stear	۴			
Air SideHeating Sourcee(4) VAV w/ Reheat(1) Natural Gas(5) Constant Volume Reheat(2) Central Plant Steam(6) Heating and Ventilating(3) Central Plant Hot Water	(3) Air Cooled Chiller	(6) Other	:		(3) Steam to H	ot Water Conver	ter		
e (1) Natural Gas (2) Constant Volume Reheat (3) Central Plant Steam (6) Heating and Ventilating (3) Central Plant Hot Water		Air Side					leating Sour	es	
(5) Constant Volume Reheat (2) Central Plant Steam (6) Heating and Ventilating	(1) Single Zone	(4) VAV w/ Ref	neat		(1) Natural Gas	(0		(4) Oil	
(6) Heating and Ventilating	(2) Multi-Zone	(5) Constant V	olume Reheat		(2) Central Plai	nt Steam		(5) Electric	
	(3) VAV	(6) Heating and	1 Ventilating		(3) Central Plai	nt Hot Water			

EMCS Annual Energy Savings Summary Report

Base: FTMEADE Building: 4411

Case: 1

Description: ADMINISTRATIVE

Fuel Type: Natural gas (methane)

Heating Value: 1,031 Btu/cf

#### Caution

Annual Energy Savings Table for Single Zone AHU

/=====================================	=========		
Strategy	MBtu/yr	kWh/yr	kW mh/yr
Demand Limiting Run Time Recording Safety Alarm	0.000	0	0.3 0
	0.000	0	0.0 2
	0.000	0	0.0 2
Totals	0.000	0	0.3 4
	MBtu/yr	kWh/yr	kW mh/yr

Description: AHU-2				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Demand Limiting Run Time Recording Safety Alarm	0.000	0	0.1	0
	0.000	0	0.0	2
	0.000	0	0.0	2
Totals	0.000	0	0.1	4
	MBtu/yr	kWh/yr	kW	mh/yr

Annual Energy Savings Table for Single Zone AHU

Description: AHU-3				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Demand Limiting Run Time Recording Safety Alarm	0.000 0.000 0.000	0 0 0	1.1 0.0 0.0	0 2 2
Totals	0.000 MBtu/yr	0 kWh/yr	1.1 kW	4 mh/yr

Annual Energy Savings Table for Single Zone AHU

Description: AHU-4		:======================================	=======================================	======
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Demand Limiting Run Time Recording Safety Alarm	0.000	0	1.1	0
	0.000	0	0.0	2
	0.000	.0	0.0	2
Totals	0.000	0	1.1	4
	MBtu/yr	kWh/yr	kW	mh/yr

Annual Energy Savings Table for Single Zone AHU

Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Demand Limiting	0.000	0	0.7	0
Run Time Recording	0.000	0	0.0	2
Safety Alarm	0.000	0	0.0	2
Totals	0.000	0	0.7	4
	MBtu/yr	kWh/yr	kW	mh/yr

Annual Energy Savings Table for Hot Water Boiler

/=====================================	=========			======
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Hot Water OA Reset Run Time Recording Safety Alarm	160.000 0.000 0.000	0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	160.000 1,031	0 Btu/cf	0.0	4
Totals	155,189 cf /yr	0 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Air Cooled Chiller

Description: CHILLER				
strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Chiller Water Reset Run Time Recording Safety Alarm	0.000	1,962	0.0	0
	0.000	5,157	0.0	0
	0.000	0	0.0	2
	0.000	0	0.0	2
Totals	0.000	7,120	0.0	4
	MBtu/yr	kWh/yr	kW	mh/yr

Annual Energy Savings Table for Lighting Control

Description: LIGHTING					
======================================	MBtu/yr	kWh/yr	kW	mh/yr	
Lighting Control	0.000	76,128	0.0	0	
Totals	0.000 MBtu/yr	76,128 kWh/yr	0.0 kW	0 mh/yr	

5 Jun 1996 15:33:28

EMCS Annual Energy Savings for Building 4411

/=====================================	Value	Units
Natural gas (methane)  Electrical Energy  Electrical Demand Reduction  Labor Savings	155,189 83,248 3.4 28	cf /yr kWh/yr kW mh/yr
	28	mh/yr

## UMCS FEASIBILITY STUDY FORT MEADE BUILDING 4411 - ADMINISTRATIVE DOE ENERGY SAVINGS SUMMARY

Existing         Electricity Natural Gas Particity Matural Gas Particity MmBtu PumBtu Pum		Electricity mmBtu 920.9	Electricity	F-1 1-1				
mmBtu mmBtu mmBtu mmBtu mmB 1430.0 1, 182.7 3,430.0 1, 1,610.6	Ε	mmBtu 920.9 397.1	mmRfi	Electricity	Electricity	Electricity Natural Gas	Electricity Natural Gas	Natural Gas
182.7 3,430.0 1, add	0 9	920.9		mmBtu	mmBtu	mmBtu	Kwh	MCF
back 80.2 1,610.6 savings 80.2 1,610.6 savings 1,610.6		397.1	9'299	190.7	3,420.6	3,430.0	1,002,212	3,326.9
:k Savings 80.2 1,610.6			9.799	190.7	2,178.1	1,610.6	638,169	1,562.1
back 80.2 1,610.6 Savings					1,242.5	1,819.5	364,043	1,764.7
and Vent/Recirc  Vent/Recirc Savings	1,610.6 842.4	397.1	9.799	190.7	2,178.1	1,610.6	638,169	1,562.1
					0.0	0.0	0	0.0
59.0 1,142.8	1,142.8 787.3	373.3	9.799	190.7	2,077.8	1,142.8	662'809	1,108.4
Venukecirc & Economizer Economizer Savings					100.2	467.7	29,370	453.7

ROJECTSW130 07/SS/4411/DOESUM WK

		ERING 19603 LY-REPORT		ITE SOFTWARE I G. MEADE UMC	DEVELOPMENT INC S STUDY		1D 1/12/1996 .1 - EXISTING C	CONDITIONS	SDL PAGE	
	AHU-1			AHU-1	AHU-1	AHU-2	AHU-2	AHU-2		
	TOT HTG COIL PWR BTU/HR	TOT CLG COIL PWR BTU/HR	SUPPLY BLECTRIC KW	COOLING CAPACITY BTU/HR	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	TOT CLG COIL PWR BTU/HR	SUPPLY BLBCTRIC KW		
	( 5)	( 6)	(49)	(70)	(78)	(5)	( 6)	(49)		
MONTHLY	SUMMARY (JAN)									
MN	-300248.	0.	6.295	209824.	-387286.		0.			
MX	-33672.	0.	6.295	209824.	-387286.		٥.	7.808		
SM	-118959480.	0.	4683.181	156108720.	-288140864.	-130958160.	٥.	5809.003		
VA	-159892.	0.	6.295	209824.	-387286.	-176019.	0.	7.808		
MONTHLY	SUMMARY (FEB)									
MN	-353132.	0.			-387286.		0.			
MX	0.	٥.	6.295	212276.						
SM	-99642504.	0.	4229.970	141006464.	-260256224.	-106619424.	0.			
AV	-148278.	٥.	6.295	209831.	-387286.	-158660.	0.	7.808		
MONTHLY	SUMMARY (MAR)									
MN	-263405.	0.		209824.			0.			
MX	0.	0.		265801.		0.	0.			
SM	-70018680.				-288140864.	-70617696.	0.			
AV	-94111.	0.	6.295	210342.	-387286.	-94916.	0.	7.808		
	SUMMARY (APR)			200004	307306	-227323.	٥.	7.808		
MIN	-203425.	0.				-22/323.				
MX	0.	0.	6.295					5621.616		
SM	-33377586.		4532.111		-278845984.					
AV	-46358.	0.	6.295	215555.	-387286.	-43129.	0.	7.808		
	SUMMARY (MAY)	0.	6 205	209824.	0.	0.	٥.	7.808		
MN	0.		6.295		0.	0.		7.808		
MX	0.	135339.		407912.	0.	0.		5809.003		
SM AV	0. 0.	10418714. 14004.	4683.181 6.295	173725648. 233502.	0.	0.		7.808		
MONPHUT	SUMMARY (JUN)									
MN	0.		6.295	209824.	0.	ŏ.	٥.	7.808		
MIX	0.		6.295	391435.	0.	0.		7.808		
SM	0.		4532.111	203993792.	0.	0.	71222832.	5621.616		
AV	· 0.	68839.	6.295	283325.	0.	0.	98921.	7.808		
MONTHLY	SUMMARY (JUL)									
MN	0.		6.295	213905.	0.	0.	0.	7.808		
MX	0.		6.295	430765.	0.	٥.	370593.	7.808		
SM	o.		4683.181	234667392.	0.	0.	101457600.	5809.003		
AV	0.	100629.	6.295	315413.	0.	0.	136368.	7.808		

DOR-2.1D 1/12/1996 10: 4:42 SDL RUN 1 EZDOE - ELITE SOFTWARE DEVELOPMENT INC ENTECH ENGINEERING BUILDING 4411 - EXISTING CONDITIONS FT. GEORGE G. MEADE UMCS STUDY 19603 PA READING. PAGE 2- 1 - HOURLY-REPORT -----AHU-2 AHU-2 AHU-2 AHU-1 AHU-1 AHU-1 AHU-1 AHU-1 STIPPT.Y COOLING HBATING TOT HTG TOT CLG SUPPLY TOT HTG TOT CLG BLECTRIC ELECTRIC CAPACITY CAPACITY COIL PWR COIL PWR COIL PWR COIL PWR BTU/HR KM BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR --- (70) ---- (78) ---(5) ---- ( 6) ---- (49) ---( 5) ---- ( 6) ---- (49) MONTHLY SUMMARY (AUG) ٥. ٥. 7.808 209824. 0. 6.295 ٥. ٥. MN 411727. ٥. 361398. 7.808 ٥. 276082. 6.295 5809.003 4683.181 228097088. ٥. ٥. 90853440. 66890928. SM 0. 122115. 7.808 6.295 306582. ٥. ٥. ٥. 89907. ΔV MONTHLY SUMMARY (SEP) 7.808 6.295 209824. ٥. ٥. ٥. 0. MN ٥. 291863. 7.808 214755. 6.295 421187. ٥. ٥. MX ٥. 191687312. ٥. 48792640. 5621.616 ٥. 33329984. 4532.111 ٥. SM 266232. ٥. 67768. 7.808 6.295 ٥. 46292. MONTHLY SUMMARY (OCT) -215602. ٥. 7.808 -387286. 209824. ٥. 6.295 -210746. MN ٥. 166164. 7.808 6.295 338813. ٥. ٥. 104493. MX -14149644 5809.003 164727824. -148717856. 7265280. 4683.181 -14723614. 2595898. 9765. -19018. 3489. 6.295 221408. -199890. ΑV -19790. MONTHLY SUMMARY (NOV) 7.808 -204477. ο. 6.295 209824. -387286 ٥. MN -181160. Ο. 7.808 -387286. ٥. 6.295 522671. ΜX 0. -61087100. 5621.616 163123040. -278845984. -57807444. 4532.111 ٥. 226560. -387286. -84843. ٥. 7.808 6.295 ٥. A۷ -80288. MONTHLY SUMMARY (DEC) 7.808 209824. -387286. -302979. ٥. ٥. MN -268129. Ο. -387286. ٥. -2747. ٥. 6.295 224744. MX 156171888. -115225216. ٥. 5809.003 -288140864. -104483408. ٥. 4683.181 7.808 ٥. 209908. -387286. -154873. ٥. A۷ -140435. YEARLY SUMMARY 7.808 209824. -387286. -377596. ٥. 6.295 ٥. MN -353132. 7.808 370593. 287726. 6.295 522671. ο. 0. MX α. -1831088640. -529710336. 339235552. 68396.336 2125002880. -499012736. 237667648. 55140.676 SM -209028. -60469. 38726. 7.808 6.295 242580. ĀV -56965. 27131.

ENTECH ENGINEERING 19603 PA READING,

EZDOE - ELITE SOFTWARE DEVELOPMENT INC FT. GEORGE G. MEADE UMCS STUDY

DOE-2.1D 1/12/1996 10: 4:42 SDL RUN 1 BUILDING 4411 - EXISTING CONDITIONS

PAGE 1- 2 - HOURLY-REPORT SH-1 ...... \_\_\_\_ AHU-3 AHU-4 AHU-3 AHU-3 AHU-2 AHU-3 AHU-3 AHU-2 MMODHH TOT HTG TOT CLG SUPPLY COOLING HRATING TOT HTG COOLING HEATING CAPACITY CAPACITY COIL PWR COIL PWR BLECTRIC CAPACITY COIL PWR CAPACITY BTU/HR BTU/HR BTU/HR BTU/HR KW BTU/HR BTU/HR BTU/HR --- (70) ---- (78) ----(5) ---( 6) ---- (49) ---(5) ---- (70) ---- (78) MONTHLY SUMMARY (JAN) 295777. -550935. -241389. 8.954 258907. -480388. -404703. Ο. MN 295777. -550935. -26209. 8.954 -480388. -8227. ٥. MX 6662.078 220058368. -409895648. -96421584. -154702912. 192627056. -357408768 ٥. 8.954 295777. -550935. -129599. -207934. -480388. ΑV 258907. MONTHLY SUMMARY (FEB) 295777. -550935 -250292. ٥. -431732. 258907. -480388. 8.954 313533. -550935. 0. 0. 274453. -480388. 6017.360 -370228352. -78644240. -124956880. ٥. 198817216. -322820832. SM 174033952. 295859. -550935. -117030. -480388. -185948. ٥. 8.954 ΑV 258979. MONTHLY SUMMARY (MAR) -197323. 258907. -330326. 0. 8.954 295777 -550935. -480388. MN -550935. 8.954 375235. ٥. 0. 0. 328518. -480388. MX -84474464. -55833100. -409895648. ٥. 6662.078 -357408768. SM 8.954 297271. -550935. -75044. -113541. AV 260171. -480388. MONTHLY SUMMARY (APR) ٥. 8.954 295777. -550935. -159435. -264198. 258907. -480388 8.954 530872. -550935. ο. -480388. ٥. MX 465270. -396673216. 221948672. -38335336. 0. 6447.172 194205776. -345879456. SM -550935. 8.954 308262. ο. -480388. -53244. ΑV 269730. MONTHLY SUMMARY (MAY) 8.954 295777. ٥. ٥. 0. ٥. 258907. MN 554224. ο. 218684. 8.954 ٥. ٥. MX 21907426. 6662.078 246400416. 0. ٥. SM 215567536. ٥. ٥. 0. 29445. 8.954 331183. 0. ٥. ٥. ΑV 289741. MONTHLY SUMMARY (JUN) 0. 8.954 295777. ٥. ٥. 0. ٥. MN 258907. ٥. 394611. 8.954 524936. 0. ٥. ٥. 460458. MX 6447.172 285177312. 249491536. 0. 79895952. SM ٥. 8.954 110967. ΑV 346516. 0. ٥. MONTHLY SUMMARY (JUL) 8.954 298781. ٥. 263716. ٥. 0. 0. MN ٥. 421986. 8.954 601665. ٥. Ο. 526733. ٥. o. 114473720. 6662.078 326053344. ٥. 0. SM 285447264. 8.954 438244. 0. 153863. 383666. ΑV

DOR-2.1D 1/12/1996 10: 4:42 SDL RUN 1 BUILDING 4411 - EXISTING CONDITIONS EZDOE - BLITE SOFTWARE DEVELOPMENT INC ENTECH ENGINEERING FT. GEORGE G. MEADE UMCS STUDY 19603 READING, PA - HOURLY-REPORT PAGE 2- 2 SH-1 AHU-3 AHU-3 AHU-3 AHU-4 AHU-3 AHU-2 AHU-2 AHU-3 TOT CLG SUPPLY COOLING HEATING TOT HTG HEATING TOT HTG COOLING CAPACITY COIL PWR COIL PWR BLECTRIC CAPACITY CAPACITY COIL PWR CAPACITY BTU/HR BTU/HR KW BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR ---- (78) ---(5) ----(6) ---- (49) ---- (70) ---- (78) ----(5) ---- (70) MONTHLY SUMMARY (AUG) 295777. 258907. ο. 8.954 ο. ٥. ο. 0. 411233. 571789. 8.954 ٥. ٥. ٥. MX 500753. 0. 101841168. 6662.078 318443680. ٥. ٥. 278452224. 0. SM AV 374264. ٥. 136883. 8.954 428016 a ٥. MONTHLY SUMMARY (SEP) 8.954 295777. ٥. Ο. 258907. ٥. MN 336007. 8.954 600823. 0. Ο. MX 518655. 269529056. 54327460. 6447.172 235943632. 0. ٥. 0. 0. 75455. 8.954 374346. ٥. ٥. ο. ΑV 327700. 0. MONTHLY SUMMARY (OCT) 8.954 295777. -550935. -150065. 258907. -480388. -244824. ٥. 188338. 8.954 491659. MX 430959. 0. 0. Ο. -184469088. -17637110. 8023775. 6662.078 234210736. -211559088. -12561942. SM 205208352. -247942. -23706. 10785. 8.954 314799. -284354. -16884. AV 275818. MONTHLY SUMMARY (NOV) 258907. -480388. -239512. 8.954 295777. -550935. -143876. MN 0. -73774136. ΜX 662049. -480388. Ο. 8.954 755997. -550935 0. -48205740. 6447.172 230922928. -396673216. SM 202339936. -345879456. Ο. -550935. 320726. -102464. Ο. 8.954 ΔV 281028. -480388. MONTHLY SUMMARY (DEC) 295777. -550935. -349257. ο. 8.954 -207525. MN 258907. -480388. 316805. -550935. ٥. 0. -480388. MX 277410. -357408768. -136545568. Ο. 6662.078 220162176 -409895648 -85200568 192718656. SM 8.954 295917. -550935. 259030. -480388. -183529. ٥. -114517. YEARLY SUMMARY 258907. -480388. -431732. ٥. 8.954 295777. -550935. -250292. MN 662049. ٥. 0. 421986. 8.954 755997. 0. ٥. -630426368. 2992893952. -2604820736. -404325792. -2271275008. 380469504. 78440.594 SM 2619602944. 43433. 8.954 341655. -297354. -46156. -259278. -71966. AV 299041.

REA	DING,	GINBERING PA 19603 HOURLY-REPORT	EZDOB - E	LITE SOFTWARE DEVEL E G. MEADE UMCS STU	DŸ	BUILDING 4411 -	EXISTING COM	DITIONS	PAGE	1- 3
	AHU-4	АНО-4	AHU-4	AHU-4						
	TOT CLC	V.100112	COOLING	HRATING						
	COLT DWD	PT PCTP IC	CAPACITY	CAPACITY						
	COIL PWR	SUPPLY BLECTRIC KW	DTM /UD	RTTI/HP						
	BTU/HR	KW	BIU/RK	BIO/ fix						
	( 6)	(49)	(70)	(78)						
MONTHLY	SUMMARY (J	AN)								
MN	٥	4.766	155664.	-293224.						
MX	0	. 4.766 . 4.766	155664.	-293224.						
SM	n	. 3545.754	115814320.	-218158688.						
AV	0	4.766	155664.	-293224.						
MONTHUT V	SUMMARY (F	(מסי								
MN	0	4 766	155664.	-293224.						
MX		4 766	155664. 160319.	-293224						
SM		1202 617	104615744	-197046560						
AV		. 4.766 . 3202.617 . 4.766	155678.	-293224.						
	SUMMARY (M	AR)								
MIN	0		155664.	-293224.						
MX	O	4.766	197184.	-293224.						
SM	O	. 3545.754	116194384.	-218158688.						
AV		1. 4.766	156175.	-293224.						
MONTHLY	Y SUMMARY (A	PR)								
MIN		4.766	155664. 273065.	-293224.						
MX		4.766	273065.	-293224.						
SM	Ċ	3431.375	115785296.	-211121312.						
AV		4.766		-293224.						
MONETHET S	Y SUMMARY (M	(DA)								
	i Surraci (i		155664.	0.						
MIX	111190	4.766	302441.							
SM	9042501	. 3545.754	129421816.	0.						
AV	12154									
MONTHUT 3	Y SUMMARY (J	TT TNA 1								
MONTAL		4 766	155664.	٥.		•				
	20933									
MX			150782464.							
SM AV	39713716 551 <b>5</b> 8									
	Y SUMMARY (	TUL)	156767	0.						
MN		J. 4.760	156263. 318717.	0.						
			177700011	0.						
SM	5907315		172398944.							
AV	7939	9. 4.766	231719.	0.						

ENTECH ENGINEERING READING, PA 19603 EZDOB - ELITE SOFTWARE DEVELOPMENT INC FT. GEORGE G. MEADE UMCS STUDY

DOE-2.1D 1/12/1996 10: 4:42 SDL RUN 1 BUILDING 4411 - EXISTING CONDITIONS

PAGE 2- 3 SH-1 - HOURLY-REPORT AHU-4 AHU-4 AHU-4 AHU-4 HEATING TOT CLG SUPPLY COOLING CAPACITY COIL PWR BLECTRIC CAPACITY BTU/HR BTU/HR BTU/HR KW ---- (70) ---- (78) ----(6) ---- (49) MONTHLY SUMMARY (AUG) 155664. 4.766 MN ٥. 216808. 4.766 299501. ٥. MX 3545.754 168466656. Ο. SM 52234332. AV 4.766 226434. ٥. MONTHLY SUMMARY (SEP) 4.766 155664. 0. MN 0. 176141. 4.766 321067. ٥. MX 26143264. 3431.375 142061760. 0. 36310. 197308. 4.766 ΑV MONTHLY SUMMARY (OCT) 0. -293224. 4.766 155664. 87421. 4.766 3545.754 253048. 0. MX -112598048. 122556376. SM 2512896. 4.766 164726. -151341. 3378. ΑV MONTHLY SUMMARY (NOV) 155664. -293224. 4.766 MN 0. 0. 4.766 396613. -293224. MX 121185272. -211121312. SM 3431.375 -293224. 168313. ΑV ٥. 4.766 MONTHLY SUMMARY (DEC) 4.766 4.766 155664. -293224. ٥. 166606. -293224. MX 0. 3545.754 115869344. -218158688. SM ٥. -293224. ΑV ٥. 4.766 155738. YEARLY SUMMARY 155664. -293224. 4.766 MN 4.766 41748.395 396613. ΜX 227022. Ο. 1575152512. -1386363264. SM 188719856. 4.766 179812. -158261. AV 21543.

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 1/12/1996 10: 4:42 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - EXISTING CONDITIONS
REPORT- PV-A EQUIPMENT SIZES WEATHER FILE- EALTIMORE, MD

NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER
EQUIPMENT SIZE INSTD 
4.000 2 2 1.100 1 1 HERM-REC-CHLR

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/12/1996 10: 4:42 PDL RUN 1
READING, PA 19603 PT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - EXISTING CONDITIONS
REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY WEATHER FILE- BALTIMORE, MD

												•	SOURCE
					S	ITE E	NERGY	•					SOURCE
	2	3	4	5	6	7	8	9	10	11	12	13	14
MONTH	TOTAL HEAT LOAD	TOTAL COOLING LOAD	TOTAL BLECTR LOAD	RCVRED ENERGY	WASTED RCVRABL ENERGY	FUBL INPUT COOLING	ELEC INPUT COOLING	FUEL INPUT HEATING	ELEC INPUT HEATING	FUEL INPUT ELECT	TOTAL FUBL INPUT	TOTAL SITE SENERGY	SOURCE
JAN	507.9	0.0	189.7 55.6E	0.0	0.0	0.0	0.0 0.0 <b>8</b>	823.9	47.3 13.9B	0.0	823.9	1013.6	1393.7
PEB	416.1	0.0	167.4 49.0B	0.0	0.0	0.0	0.0 0.0B	673.0	38.7 11.38	0.0	673.0	840.4	1175.8
MAR	287.8	0.0	177.3 51.9B	0.0	0.0	0.0	0.0 0.0B	470.3	29.2 8.5B	0.0	470.3	647.6	1002.8
APR	136.9	0.0	155.5 45.68	0.0	0.0	0.0	0.0E	223.7	15.8 4.68	0.0	223.7	379.2	690.8
MAY	0.0	80.5	277.9 81.4B	0.0	0.0	0.0	135.5 39.7E	0.0	0.0E	0.0	0.0	277.9	834.6
JUN	0.0	259.2	451.4 132.28	0.0	0.0	0.0	308.8 90.4E	0.0	0.0 0.0E	0.0	0.0	451.4	1355.6
JUL	0.0	369.3	540.2 158.28	0.0	0.0	0.0	400.7 117.3B	0.0	0.0 0.0E	0.0	0.0	540.2	1622.3
AUG	0.0	331.3	510.5 149.58	0.0	0.0	0.0	362.3 106.1B	0.0	0.0 0.0E	0.0	0.0	510.5	1533.0
SEP	0.0	181.4	376.7 110.3B	0.0	0.0	0.0	236.9 69.4B	0.0	0.0 0.0B	0.0	0.0	376.7	1131.2
ост	62.6	39.9	225.6 66.1E	0.0	0.0	0.0	78.6 23.0B	102.3	7.5 2.2B	0.0	102.3	328.0	779.9
VON	247.5	0.0	162.4 47.6E	0.0	0.0	0.0	0.0E	404.5	25.5 7.5B	0.0	404.5	566.9	892.2
DEC	448.4	0.0	185.6 54.4B	0.0	0.0	0.0	0.0 0.0B	732.2	43.2 12.78	0.0	732.2	917.9	* 1289.7 *
	2107.3	1261.6	3420.4 1001.8E	0.0	0.0	0.0	1522.8 446.0E	3430.0	207.1 60.7B	0.0	3430.0	6850.5	13701.6

NOTE-- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES FOLLOWED BY B ARE IN MWH (THOUSANDS OF KWH)

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/12/1996 10: 4:42 PDL RUN 1 READING, PA 19603 PT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - EXISTING CONDITIONS REPORT- PS-B MONTHLY PEAK AND TOTAL ENERGY USE WEATHER FILE- BALTIMORE, MD

				_
мо	UTILITY-	BLECTRICITY	NATURAL-GAS	
	TOTAL (MBTU)	189.735	823.908	
	PRAK (KBTU)	464.611	1989.593	
JAN		31/10	31/6	
	DY/HR	32/20	, -	
	TOTAL (MBTU)	167.428	672.976	
FEB	PEAK (KBTU)		2109.389	
100	DY/HR	464.611 4/ 9	12/10	
	21/	·		
	TOTAL (MBTU)	177.320	470.319	
MAR	PRAK (KBTU)	450.679		
	DY/HR	4/7	5/8	
	TOTAL (MBTU)	155.532		
APR	PEAK (KBTU)	437.423		
	DY/HR	8/7	9/8	
		***	0.000	
	TOTAL (MBTU)	277.936 1003.018	0.000	
MAY	PEAK (KBTU)	1003.018		
	DY/HR	6/17	31/ 1	
	momat (MDTT*)	451.426	0.000	
	TOTAL (MBTU) PEAK (KBTU)	1114.769	0.000	
JUN	DY/HR	28/15	30/1	
	DI/AR	22, 20	*	
	TOTAL (MBTU)	540.215	0.000	
JUL		540.215 1119.294	0.000	
000	DY/HR		31/ 1	
	TOTAL (MBTU)	510.497		
AUG	PRAK (KBTU)	1117.074	0.000	
	DY/HR	18/15	31/ 1	
	TOTAL (MBTU)			
SEP	PRAK (KBTU)	1101.149		
	DY/HR	1/17	30/1	
			102 749	
	TOTAL (MBTU)	225.624	102.348 1357.165	
OCT	PEAK (KBTU)	970.493		
	DY/HR	13/16	10/ 2	
		167 707	404.529	
	TOTAL (MBTU)	162.397 434.182	1263.524	
NOV	PEAK (KBTU)	25/7		
	DY/HR	23/ /	٠, ٠	
	TOTAL (MBTU)	185.626	732.238	
252	PEAK (KBTU)	461.595		
DRC	DY/HR	21/ 9	22/3	
	D1/RR	,		
			3430.031	
	ONE YEAR	3420.442	2109.389	
	USE/PEAK	1119.294	2109.389	

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/12/1996 10: 4:42 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - EXISTING CONDITIONS
REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

HEATING LOADS		PCT OF TOTAL LOAD
HW-BOILER	2107.3	100.0
LOAD SATISFIED TOTAL LOAD ON PLANT	2107.3 2107.3	100.0
COOLING LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
HERM-REC-CHLR	1261.6	100.0
LOAD SATISFIED TOTAL LOAD ON PLANT	1261.6 1261.6	100.0
BLECTRICAL LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
ELECTRICITY	3420.4	100.0
LOAD SATISFIED TOTAL LOAD ON PLANT	3420.4 3420.4	100.0

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/12/1996 10: 4:42 PDL RUN 1
READING, PA 19603 PT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - EXISTING CONDITIONS
REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

(CONTINUED) -------

SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
HEATING LOADS	2107.3	2107.3	0.000	0.000	0
COOLING LOADS	1261.6	1261.6	3.182	0.262	51
ELECTRICAL LOADS	3420.4	3420.4	0.000	0.000	0

ENTECH ENGINEERING BZDOE - BLITE SOFTWARE DEVELOPMENT INC DOB-2.1D 1/12/1996 10: 4:42 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - EXISTING CONDITIONS
REPORT- PS-H EQUIPMENT USE STATISTICS
WEATHER FILE- BALTIMORE, MD

	AVG	MAX	MON					
EQUIPMENT	OPER RATIO	LOAD (MBTU)	DAY HR	SIZE OPER (MBTU) HRS				
HW-BOILER	0.111	1.401	2 12 10	4.000 4728				
HERM-REC-CHLR	0.260	1.167	7 25 23	1.100 4416				

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 1/12/1996 10: 4:42 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - EXISTING CONDITIONS
REPORT- PS-I EQUIPMENT LIFE CYCLE COSTS WEATHER FILE- BALTIMORE, MD

R Q U I	P M B N T	T O T	A L S	
HW-BOILER		189.8		
UM-BOILDEK	NOMINAL SIZE (MBTU)	202.0		4.000
				2
	NUMBER INSTALLED			_
	FIRST COST (K\$)			179.6
	ANNUAL COST (K\$)		4.6	4.6
	CYCLICAL COST (K\$)		5.6	5.6
	TOTAL(K\$)			189.8
HERM-REC-CH	7 D	36.5		
NEW-KEC-CE	NOMINAL SIZE (MBTU)	30.5		1.100
				1
	NUMBER INSTALLED			_
	FIRST COST (K\$)		24.2	24.2
	ANNUAL COST (K\$)		2.3	2.3
	CYCLICAL COST (K\$)		10.1	10.1
	TOTAL (K\$)			36.5
BQUII	MENT TOTAL	226.3		

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 1/12/1996 10: 4:42 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - EXISTING CONDITIONS
REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE WEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE MBTU -	ELECTRICITY	NATURAL-GAS
CATEGORY OF USE		
SPACE HEAT	182.74	3430.00
SPACE COOL	1458.62	0.00
HVAC AUX	920.88	0.00
DOM HOT WTR	0.00	0.00
AUX SOLAR	0.00	0.00
LIGHTS	667.58	0.00
VERT TRANS	0.00	0.00
MISC EQUIP	190.73	0.00
TOTAL	3420.56	3430.00

TOTAL SITE ENERGY 6850.47 MBTU 206.2 KBTU/SQFT-YR GROSS-AREA 206.2 KBTU/SQFT-YR NET-AREA TOTAL SOURCE ENERGY 13701.63 MBTU 412.4 KBTU/SQFT-YR GROSS-AREA 412.4 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 0.0 PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.6

NOTE BLECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

REA PH-1	ENTECH ENGINE DING, PA = HOUR	BRING 19603 LY-REPORT		E SOPTWARE DEVE . MEADE UMCS ST			1/12/1996 10: 4:42 EXISTING CONDITIONS	PAGE	
MMODEH	HW-BOILE R LOAD BTU/HR	HW-BOILE R ELECTRIC USE BTU/HR	HW-BOILE R FUEL USE BTU/HR	HERM-REC -CHLR LOAD BTU/HR	HERM-REC -CHLR BLECTRIC USE BTU/HR	HERM-REC -CHLR NOM CAP RUNNING BTU/HR			
	( 1)	(3)	( 4)	( 1)	(3)	( 7)			
MONTHLY	SUMMARY (JAN)								
MIN	83826.	7377.	136983.	0.	0.	0.			
MX			1989593.	٥.	0.	0.			
SM		43477696.		0.	0.	0.			
AV	682713.		1107403.			0.			
MONTHLY	SUMMARY (FEB)								
MN	9269.	816.	15148.	0.					
MX	1400574.	88000.	2109389.						
SM	416092096.	35231956.	672975488.	٥.					
AV					0.	0.			
MONTHLY	SUMMARY (MAR)				_				
MN	9269.	816.	15148.	0.					
MOX	1089828. 287840416.	88000.	1741406.						
SM	287840416.	25319440.	470318880.	0.	0.				
AV	386882.	34032.	632149.	0.	0.	0.			
	SUMMARY (APR)			0.	0.	0.			
	9269.	816. 76001.	15148.						
MX	863651.	76001.	1411326.		0.				
	136898704. 190137.			0.	0.				
MONTHL	Y SUMMARY (MAY)	0.	٥	26163.	47231.	1100000.			
MN	0.		n.	681945	617023.	1100000. 818400000.			
	0.	0.	0.	80477848	124697840.	818400000.			
MS VA	0.	0.		108169.	167605.	1100000.			
MONTHI	Y SUMMARY (JUN)						_		
MN		0.	0.	26163.	47231.	1100000.	-		
MOC	0.	0.	0.	1128034.	728773.	1100000.			
SM	0.	0.	٥.	259234160.	298312672.	792000000.			
AV	0.	0.		360047.		1100000.			
MONTHL	Y SUMMARY (JUL)								
MN	0.	0.	0.	26163. 1166669.	47231.	1100000.			
MX	0.		0.	1166669.	47231. 733298. 389848160.	1100000.			
SM	0.	0.	0.	369337856.	389848160.				
AV	٥.	0.	۵.	496422.	523989.	1100000.			

	ENTECH ENGINE	RING 19603	EZDOE - ELITE FT. GEORGE G.	SOFTWARE DEVE	LOPMENT INC	DOE-2.1D BUILDING 4411 -	1/12/1996 10: 4: EXISTING CONDITIONS	42 PDL	, RUN I	L
PH-1		LY-REPORT						PAGE	2- :	1
	R	HW-BOILE R ELECTRIC		HERM-REC -CHLR LOAD	HERM-REC -CHLR BLECTRIC USE	HERM-REC -CHLR NOM CAP			,	•
	BTU/HR	use BTU/HR	use btu/hr	BTU/HR	BTU/HR	RUNNING BTU/HR				
	( 1)	( 3)	( 4)	( 1)	( 3)	( 7)	•			
MONTHLY	SUMMARY (AUG)									
MN	0.	0.	0.	26163.	47231.	1100000.				-
MX	0.	0.	0.	1123747.	731078.					
SM	0.	0.	0.	1123747. 331285280.	351514112.	818400000.				
AV	0.	0.	0.	445276.	472465.	1100000.				
MONTHLY	SUMMARY (SEP)									
MN	0.	0.	0.	26163.	47231.					
MX	0.	0.	٥.	1044929.	715153.	1100000.				
SM	0.	0.	0.	181430880.	226464992.	792000000.				
AV	0.	0.	0.	251987.	314535.	1100000.				
MONTHLY	SUMMARY (OCT)									
MN	0.	٥.	0.		47231. 584497.	1100000. 1100000.				
MX	830507.	73085.								
SM	62631476.	5511569.	102348568.	39863280.		818400000.				
AV	84182.	7408.	137565.	53580.	91081.	1100000.				
MONTHLY	SUMMARY (NOV)					٥.				
MIN	9269.	816.	15148.							
MX	773204.	68042.	1263524.			0.				
SM			404528704.		0.					
AV	343817.	30256.	561845.	0.	0.	0.				
MONTHLY	SUMMARY (DEC)					2				
MIN	16882.	1486.		0.						
MX	1137158.		1797763.			. 0.				
SM	448351264.	39368704.			0.					
AV	602623.	52915.	984190.	٥.	0.	0.				
YEARLY	SUMMARY	0.	-	_	•	. 0.				
MN	0.		0.	0.	777777	, V.				
MX	1400574.		2109389.		733298.	1100000.				
SM	2107300864.	182740704.	3430028288.	1261629312.						
VA	240559.	20861.	391556.	144022.	166507.	. 554521.				

SH-1	ADING, PA = HOUR	19603 LY-REPORT	FT. GEORGE	G. MEADE UMCS	STUDY	DOE-2.1D 6/13/1996 7:54:59 SDL BUILDING 4411 - NEW CONDITIONS PAGE			
MMDDHH	AHU-1	AHU-1							
	TOT HTG COIL PWR BTU/HR	TOT CLG COIL PWR BTU/HR	SUPPLY ELECTRIC KW	COOLING CAPACITY BTU/HR	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	TOT CLG COIL PWR BTU/HR	SUPPLY BLECTRIC KW	
	( 5)	(6)	(49)	(70)	(78)	(5)	(6)	(49)	
MONTHL	Y SUMMARY (JAN)								
MIN	-402798.	0.	0.000	0.	-387286.	-499259.	0.	0.000	
MX		0.	6.295	209824.	-387286. 0.	0.	0.	7.808	
SM	-59015640.	0.	1586.239	52875556.	-97596120.	-62584944.	٥.	1967.566	
	-79322.	0.	2.132	71069.	0. -97596120. -131178.	-84120.	0.	7.808 1967.566 2.645	
	Y SUMMARY (FEB)								
	-399990.	0.	0.000	0.	-387286.	-496212.	0.	0.000	
MX	0.	0.	6.295	209824.	-387286. 0. -88301256.	0.	0.	7.808 1780.178 2.649	
SM	-48701132.	0.	1435.169	47839788.	-88301256.	-48930920.	0.	1780.178	
VA	-72472.	0.	2.136	71190.	-131401.	-72814.	0.	2.649	
	Y SUMMARY (MAR)			_			•		
MN	-391833.	0.	0.000	0.	-387286. 0.	-454014.	0.	0.000	
MX		0.	6.295	230420.	0.	0.	0.	7.808 2154.953	
SM	-35330188.	0.	1737.309	58043904.	-106890984.	-31902280.	0.	2154.953	
VA	-47487.	0.	2.335	78016.	0. -106890984. -143671.	-42879.	0.	2.896	
	Y SUMMARY (APR)			_			-		
MN	-312783.	0.	0.000	0.	-387286.	-306333.	Ú.	0.000	
МX	o.	0.	6.295	349134.	0.	0.	5.	7.808	
SM	-14071661.	• 0.	1586.239	55092520.	-97596120.	-10899122.	3.	7.808 1967.566 2.733	
AV	~19544.	0.	2.203	76517.	-135550.	-15138.	0.	2.733	
	Y SUMMARY (MAY)				•	•			
MM		٥.	0.000	0.	0.	0.	0.	0.000	
XM		136146.	6.295 1586.239	333317.	0.	0.			
SM	٥.		1586.239	59458168.	0.		13624313.		
ΑV	٥.	10025.	2.132	79917.	0.	0.	18312.	2.645	
	Y SUMMARY (JUN)					2			
MN	٥.	0.	0.000	0. 390583.	0.	0.	0.	0.000	
ХM		286026.	6.295	390583.	0.	0.	374271. 45794332.	7.808	
SM		31959684.	1661.//4	/49/4208.	u.				
ΑV	٥.	44388.	2.308	104131.	0.	Э.	63603.	2.863	
	LY SUMMARY (JUL)	_	2 222			٥	^	0.000	
	Э.	0.	0.000	0.	0. 0.	0.	412220	0.000 7.808	
MX	0.	321078.	6.295	370146.	0.	0.	412239.	7.808	
SM		42040324.	1510.704	71828808.	0.	0.	55945496. 75196.	18/3.872	
λV	0.	56506.	2.031	96544.	0.	0.	75196.	2.519	

DOE-2.1D 6/13/1996 7:54:59 SDL RUN 1 BUILDING 4411 - NEW CONDITIONS EZDOE - ELITE SOFTWARE DEVELOPMENT INC ENTECH ENGINEERING READING, PA 19603 = HOURLY-REPORT FT. GEORGE G. MEADE UMCS STUDY -----AHU-1 AHU-1 AHU-1 AHU-2 AHU-2 AHU-2 AHU-1 AHU-1 TOT HTG TOT CLG COOLING HEATING TOT HTG TOT CLG STIPPI.Y CAPACITY CAPACITY COIL PWR COIL PWR ELECTRIC ELECTRIC COIL PWR COIL PWR BTU/HR BTU/HR BTU/HR BTU/HR KW KW BTII/HR BTU/HR ---- (70) ---- (78) ---(5) ----(6) ----(49) ----(5) ----( 5) ----(49) MONTHLY SUMMARY (AUG) 0.000 Ο. ο. ο. 0. 0.000 MN 0. 357443. 385910. 7.808 0. 0. 0. 295870. 6.295 ΜX 81486536. 0. 0. 58901660. 2154.953 1737.309 SM ٥. 43150440. 109525. 0. Ο. 79169. 57998. 2.335 ΑV 0. MONTHLY SUMMARY (SEP) 0. 0. 0. 0. 0.000 0. 0.000 ٥. 352605. 321369. 252605. MX 0. 6.295 1967.566 21797450. 1586.239 65059808. ٥. 0. 32337430. SM ٥. 90361. ΑV 0. 30274. 2.203 0. Ο. 44913. 2.733 MONTHLY SUMMARY (OCT) 0. 0.000 0. -387286. -259509. 0. 0.000 MN -260671. 173853. 108775. Ο. 6.295 280685. 9. 7.808 ΜX 0. -51121784. -3958649. 5996223. 1873.872 53691632. -5237630. 2313090. 1510.704 -68712. -5321. 8059. -7040. 72166. 2.031 3109. ΑV MONTHLY SUMMARY (NOV) ٥. -387286. -407358. 0. 0.000 -368294. 0.000 0 6.295 517420. 7.808 мх 0. 0. -27144216. 1510.704 57330564. -92948688. -26321932. 0. 1873.872 SM -36558. 2.098 79626. -129095. Ο. Ο. 2.603 MONTHLY SUMMARY (DEC) -474965. -387286. -401741. ٥. 0.000 0. 0. 0.000 213459. 0. 0. 6.295 МΧ ο. ٥. -55645948. 52881272. -97596120. ٥. 1967.566 -53031920. 1586.239 SM ٥. 71077. -74793. -131178. 0. 2.645 ΑV YEARLY SUMMARY -402798. 0.000 0. -387286. -499259 0. 0.000 MN 412239. 321078. 6.295 517420 0. 0. 7.808 -632051072. 730562816. -242532400. 19034.869 148719216. -27425. -72152. 24269. 2.695 16977. 2.173 ΑV -27686.

DOE-2.1D 6/13/1996 7:54:59 SDL RUN 1 EZDOR - ELITE SOFTWARE DEVELOPMENT INC ENTECH ENGINEERING BUILDING 4411 - NEW CONDITIONS FT. GEORGE G. MEADE UMCS STUDY READING, PA 19603 + HOURLY-REPORT PAGE 1- 2 SH-1 100 1° 4 AHU-4 AHU-3 AHU-2 AHU-3 AHU-3 AHU-3 AHU-3 MMDDHH AHU-2 SUPPLY COOLING HEATING TOT HTG TOT HTG TOT CLG HEATING COOLING COIL PWR ELECTRIC CAPACITY CAPACITY COIL PWR CAPACITY COIL PWR CAPACITY BTU/HR BTU/HR KW BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR ----(5) ----(6) ----(49) ----(70) --- (78) ---(5) --- (78) ---- (70) MONTHLY SUMMARY (JAN) -572577. 0.000 0. -550935. -304657. 0. -480388. α. MN 295777. 8.954 0. 0. MX 258907. 0. 0. 0. -121057904. -72415736. 2256.509 74535904. -138835664. -44177240. SM 65244644 -186607. -59378. -162712. -97333. 0. 3.033 100183. 87694. ΑV MONTHLY SUMMARY (FEB) 0.000 -550935. -302854. -480388. -569074. MN 0. 295777. 258907. 0. ٥. 8.954 0. 0. ٥. MX -55977768. -109528576. -34771208. 2041.603 -125613216. 67437248. 59030868. 0. -186924. 100353. -51743. -83300. Ο. 3.038 ΑV 87844. -162989. MONTHLY SUMMARY (MAR) -550935. -295817. -480388. -523020. 0 0.000 a. MN 355503. 307474. 8.954 0. -132587232. 0. ΜX 0. 0. Ο. -37658680. 82085776. -152058096. -25553426. 0. 2471.414 SM 71842672. -50617. ٥. 3.322 110330. -204379. -34346. 96563. -178209. ΑV MONTHLY SUMMARY (APR) -480388. -359698. 0. 0.000 -550935. -211891. MN ο. 463268. 528876. 0. -138835664. 0. -10570656. 0. 0. 3.954 ΜX -121657904. 69542208. -13834005. 0. 2256.509 79412704. -192827. 96586. -168136. -19214. 3.134 110295. -14681. ΑV 0. MONTHLY SUMMARY (MAY) 0.000 ٥. 0. Э. 0. MN 0. 0. Э. 397962. 0. 219986. 458435. ٥. ō. 3.954 ٥. MX 0. ٥. 14480117. 2256.509 84697280 Ω. 0. SM 74049920. 99529. 113840. 0. 0. 0. 19463. 3.033 ٥. MONTHLY SUMMARY (JUN) ٥. ο. ο. 0.000 0. 0. ٥. 423799. 510150. MX 453605. O ٥. 3.954 0. ٥. 2363.961 105303632. 92180736. SM 146255. ٥. 69751. 3.283 a. ο. ΑV 128029. MONTHLY SUMMARY (JUL) 0. 0.000 3 Λ n MN 0. 532480. 467239. 461372. Ο. 0. 8.954 0. 0.

61732904.

82974.

ο.

α.

SM

ΑV

88303376.

118687.

2149.056

135486.

EZDOR - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/13/1996 7:54:59 SDL RUN 1 FT GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS ENTECH ENGINEERING FT. GEORGE G. MEADE UMCS STUDY PA 19603 READING, . HOURLY-REPORT SH-1 - 1000 AHU-3 **AHU-**3 AHU-3 AHU-3 AHU-4 AHU-3 AHU-2 AHU-2 TOT HTG SUPPLY COOLING HEATING HEATING TOT HTG TOT CLG COOLING COIL PWR COIL PWR ELECTRIC CAPACITY CAPACITY CAPACITY CAPACITY COIL PWR BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR KW BTU/HR BTU/HR ----(78) ---(5) ---- (78) ---(5) ----(6) ---- (49) ---- (70) ---- (70) MONTHLY SUMMARY (AUG) 0. 0.000 0. 0. 0. 0. Α. 436683. 8.954 492226. 0. 0. 0. 433910. MX 0. ٥. 0. 65061972. 2471.414 114549432. ٥. ٥. 100244760. SM 87449. 153964. 3.322 ο. ٥. 134738. 0. 0. ΑV MONTHLY SUMMARY (SEP) Ο. 0. 0.000 0. 0. 0. MN 0. 485696. 360442. 8.954 0. 422170. ٥. 0. 0. ΜX 91940408. 2256.509 35012216. 80567008. 0. 0. 48628. 3.134 127695. ٥. ٥. Ο. ΑV 111899. ο. MONTHLY SUMMARY (OCT) 0. 0.000 -550935. -188156. -480388. -303866. MN 393557. 196223. 8.954 345176. 0. -63411268. 0. -72723424. -5134238. 6314585. 2149.056 76604008. -4153298. SM 67092104. -6901. 8487. 2.889 102962. -97747. -5582. -85230. 90178. ΑV MONTHLY SUMMARY (NOV) -480388. -459349. Ο. 0.000 0. -550935. -256571. 0. MN 751710. 657976. 0. Ο. 8.954 0. 0. ΜX -31114950. 2149.056 81529112. 71460808. -115293240. 0. -43215. 2.985 113235. -183645. -28243. 99251. ΑV -160130. MONTHLY SUMMARY (DEC) 0.000 -550935. -305109. -551986. MN 0. 265247. -480388. 303479. 0. 8.954 0. 0. ο. MX -138835664. -39660300. 2256.509 74552416. -121057904. -64614116. 0. 65259484. SM -186607. -53307. -86847. 3.033 100205. Ο. 87714. -162712. YEARLY SUMMARY -550935. -305109. 0.000 0. -480388. -572577. 0. 751710. 467239. 8.954 657976. 0. 0. -899126144. -179220768. -280749504. 232822272. 27078.102 1033449216. -783994048.

-32049.

26578.

3.091

117974.

-102640.

-20459.

SM

ΑV

904818560.

103290.

-89497.

INC DOE-2.1D 6/13/1996 BUILDING 4411 - NEW CONDITIONS ENTECH ENGINEERING DING, PA 19603 = HOURLY-REPORT EZDOE - ELITE SOFTWARE DEVELOPMENT INC 7:54:59 SDL RUN 1 READING, FT. GEORGE G. MEADE UMCS STUDY PAGE 1- 3 ..... AHU-4 AHU-4 AHU-4 MMDDHH AHU-4 TOT CLG SUPPLY COOLING HEATING COIL PWR ELECTRIC CAPACITY CAPACITY BTU/HR KW BTU/HR BTU/HR ---- (49) ---- (70) ---- (78) ----(6) MONTHLY SUMMARY (JAN) 0. -293224. 0.000 MN 0. 0. -73892512. ο. 4.766 155664. мх ٥. 1200.981 39227420. SM -99318. ΑV ٥. 1.614 52725. MONTHLY SUMMARY (FEB) 0.000 0. -293224. 0. MN 155664. ٥. 4.766 0. -66855132. 35491476. 1086.602 SM 0. 1.617 52815. -99487. ΑV ο. MONTHLY SUMMARY (MAR) -293224. 0.000 0. MN 0. 178200. 4.766 MX 0. 1315.360 43107344. -80929888. SM 0. -108777. ΑV 57940. MONTHLY SUMMARY (APR) 0.000 0. -293224. MN 0. 270729. 4.766 1200.981 ٥. 0. -73892512. 41262624. SM 0. 57309. 1.668 0. AV MONTHLY SUMMARY (MAY) 0.000 MN 0. 111164. 4.766 249625. ΜX 6051088. 1200.981 44516536. 0. 8133. ۸V 1.614 59834. 0.

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MONTHLY SUMMARY (JUN)

MONTHLY SUMMARY (JUL)

MX

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ΜX

SM ΑV 0.

224536

24459034. 33971.

247132.

31606610.

42482.

0.000

4.766

1.747

0.000

1.537

4.766 1143.792

1258.171

0

0.

279107.

77433.

280402.

71612.

53279324.

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 6/13/1996 7:54:59 SDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS

SH-1	- HOUT	RLY-REPORT			PAGE 2-
	AHU-4	AHU-4	AHU-4	AHU-4	
		SUPPLY ELECTRIC KW		CAPACITY	
	( 6)	(49)	(70)	(78)	
MONTHLY	SUMMARY (AUG)				
MIN	0.	0.000	0. 268668.	0.	
MX	229142.	4.766	268668.	0.	
SM	32781380.	1315.360	60649580.	0.	
AV	44061.	1.768	81518.	0.	
MONTHLY	SUMMARY (SEP)				
MN	0.	0.000	0.	0.	
MX	191917.	4.766 1200.981	262547.	0.	
SM	16552510.	1200.981	48330232.	0.	
AV	22990.	1.668	67125.	0.	
MONTHLY	SUMMARY (OCT)				
MIN	٥.	0.000 4.766	0.	-293224. 0.	
MX	90081.	4.766	208366.	0.	
SM	2037468.	1143.792	40165216.	-38705596.	
AV	2739.	1.537	53986.	-52024.	
MONTHLY	SUMMARY (NOV)				
MN	0.	0.000	٥.	-293224.	
MX	0.	4.766	394086. 42770988.	0.	
SM	0.	1143.792			
ΑV	0.	1.589	59404.	-97741.	
MONTHLY	SUMMARY (DEC)				
MN	0.			-293224.	
MX	0.		160615.		
SM	٥.	1200.981	39236820.	-73892512.	
λV	0.	1.614	52738.	-99318.	
YEARLY	SUMMARY				
MN	0.	0.000	0.		
MX	247132. 113488096.	4.766	394086.		
SM	113488096.	14411.776	543789568.	-478541984.	
VA	12955.		62076.	-54628.	

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/13/1996 7:54:59 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
REPORT- PV-A EQUIPMENT SIZES WEATHER FILE- BALTIMORE, MD

EQUIPMENT	NUMBER SIZE INSTD (MBTU/H) AVAIL					
HW-BOILER	4.000 2 2					
HERM-REC-CHLR	1.100 1 1					

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/13/1996 7:54:59 PDL RUN 1
READING. PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY WEATHER FILE- BALTIMORE, MD

					s	ITE E	NERG	ľ					• SOURCE
	2	3	4	5	6	7	8	9	10	11	12	13	14
MONTH	TOTAL HEAT LOAD	TOTAL COOLING LOAD	TOTAL ELECTR LOAD	RCVRED ENERGY	WASTED RCVRABL ENERGY	FUEL INPUT COOLING	ELEC INPUT COOLING	FUEL INPUT HEATING	ELEC INPUT HEATING	FUEL INPUT ELECT	TOTAL FUEL INPUT		TOTAL SOURCE ENERGY
JAN	250.2	0.0	120.3 35.2E	0.0	0.0	0.0	0.0E	390.8	24.6 7.2E	0.0	390.8	511.1	752.0
FEB	198.6	0.0	107.1 31.4E	0.0	0.0	0.0	0.0E	312.3	20.6 6.0E	0.0	312.3	419.5	634.1
MAR	141.4	0.0	121.7 35.6E	0.0	0.0	0.0	0.0 0.0E	228.2	18.0 5.3E	0.0	228.2	349.8	593.5
APR	60.0	0.0	106.4 31.2E	0.0	0.0	0.0	0.0 0.0E	97.8	11.1 3.3E	0.0	97.8	204.2	417.4
MAY	0.0	63.2	199.3 58.4E	0.0	0.0	0.0	103.6 30.3E	0.0	0.0 0.0E	0.0	0.0	199.3	598.4
מטע	0.0	173.3	282.9 82.8E	0.0	0.0	0.0	183.6 53.8E	0.0	0.0 0.0E	0.0	0.0	282.9	849.5
JUL	0.0	212.9	285.7 83.7E	0.0	0.0	0.0	194.0 56.8E	0.0	0.0 0.0E	0.0	0.0	285.7	857.9
AUG	0.0	221.5	311.0 91.1E	0.0	0.0	0.0	207.3 60.7E	0.0	0.0 0.0E	0.0	0.0	311.0	934.0
SEP	0.0	126.6	244.3 71.6E	0.0	0.0	0.0	149.0 43.6E	0.0	0.0 0.0E	0.0	0.0	244.3	733.7
oct	24.1	38.2	173.0 50.7E	0.0	0.0	0.0	76.1 22.3E	39.4	5.3 1.5E	0.0	39.4	212.4	559.0
NOV	115.5	0.0	107.0 31.3E	0.0	0.0	0.0	0.0 0.0E	186.9	15.7 4.6E	0.0	186.9	293.9	508.2
DEC	223.9	0.0	119.4 35.0E	0.0	0.0	0.0	0.0 0.0E	355.2	23.7 6.9E	0.0	35 <b>5.2</b>	474.6	713.7
	3829722				******		2222330	======	2288888				* ******
	1013.7	835.6	2178.0 637.9E	0.0	0.0	0.0	913.6 267.6E	1610.6	118.9 34.8E	0.0	1610.6	3788.6	8151.2

NOTE-- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES FOLLOWED BY E ARE IN MWH (THOUSANDS OF KWH)

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/13/1996 7:54:59 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
REPORT- PS-B MONTHLY PEAK AND TOTAL ENERGY USE WEATHER FILE- BALTIMORE, MD

ELECTRICITY NATURAL-GAS UTILITY-MO 120.271 390.785 TOTAL (MBTU) 3058.265 467.634 JAN PEAK (KBTU) DY/HR 31/17 17/7 TOTAL (MBTU) 107.136 312.336 2954.196 467.634 FEB PEAK (KBTU) 28/ 7 14/ 7 DY/HR TOTAL (MBTU) 121.664 228.151 2435.478 MAR PEAK (KBTU) 467.634 DY/HR 28/ 7 106.436 97.772 TOTAL (MBTU) PEAK (KBTU) 467.634 1828.217 APR DY/HR 11/ 7 8/7 199.254 0.000 TOTAL (MBTU) PEAK (KBTU) 1005.411 0.000 MAY DY/HR 6/17 31/ 1 TOTAL (MBTU) 282.884 0.000 PEAK (KBTU) 1120.914 0.000 JUN DY/HR 27/15 30/1 TOTAL (MBTU) 285.672 0.000 JUL PEAK (KBTU) 1120.855 0.000 DY/HR 25/14 31/ 1 TOTAL (MBTU) 311.020 0.000 AUG PEAK (KBTU) 1118.544 0.000 DY/HR 18/15 31/ 1 TOTAL (MBTU) 244.309 0.000 1116.381 SEP PEAK (KBTU) 0.000 30/ 1 DY/HR TOTAL (MBTU) 173.032 39.414 1665.025 OCT PEAK (KBTU) 978.911 13/16 DY/HR TOTAL (MBTU) 106.991 186.907 467.634 2199.719 PEAK (KBTU) NOV DY/HR TOTAL (MBTU) 119.378 355.203 PEAK (KBTU) 467.634 2520.886 DEC DY/HR 28/ 7 27/ 7 ONE YEAR 2178.047 1610.568 1120.914 3058.255 USE/PEAK

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/13/1996 7:54:59 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

HEATING LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
HW-BOILER	1013.7	100.0
	**********	计自由性性 经通过 医乳状虫虫 医甲基
LOAD SATISFIED	1013.7	100.0
TOTAL LOAD ON PLANT	1013.7	
COOLING LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
HERM-REC-CHLR	835.6	100.0
	**********	化 化 医 医 医 医 化 化 化 化 化 化 化 化 化 化 化 化 化 化
		100.0
LOAD SATISFIED	835.6	100.0
LOAD SATISFIED TOTAL LOAD ON PLANT	835.6 835.6	100.0
		100.0
	835.6	PCT OF TOTAL LOAD
TOTAL LOAD ON PLANT	835.6	
TOTAL LOAD ON PLANT	835.6 MBTU SUPPLIED	PCT OF TOTAL LOAD
TOTAL LOAD ON PLANT ELECTRICAL LOADS	835.6	PCT OF TOTAL LOAD
TOTAL LOAD ON PLANT ELECTRICAL LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
TOTAL LOAD ON PLANT ELECTRICAL LOADS ELECTRICITY	MBTU SUPPLIED	PCT OF TOTAL LOAD

SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
HEATING LOADS	1013.7	1013.7	0.000	0.000	0
COOLING LOADS	835.6	835.6	12.472	0.420	122
ELECTRICAL LOADS	2178.0	2178.0	0.000	0.000	0

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 6/13/1996 7:54:59 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
REPORT- PS-H EQUIPMENT USE STATISTICS
WEATHER FILE- BALTIMORE, MD

EQUIPMENT	AVG OPER RATIO	MAX LOAD (MBTU)	MON DAY HR	SIZE OPER (MBTU) HRS				
HW-BOILER	0.054	2.221	1 17 7	4.000 4728				
HERM-REC-CHLR	0.172	1.174	7 18 8	1.100 4416				

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/13/1996 7:54:59 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
REPORT- PS-I EQUIPMENT LIFE CYCLE COSTS WEATHER FILE- BALTIMORE, MD

EQUIPMENT	TOTALS	
HW-BOILER	189.8	
NOMINAL SIZE (MBTU)	4.000	
NUMBER INSTALLED	2	
FIRST COST (KS)	179.6 179.6	
ANNUAL COST (K\$)	4.6 4.6	
CYCLICAL COST (K\$)	5.6 5.6	
TOTAL (K\$)	189.8	
	36.5	
HERM-REC-CHLR		
NOMINAL SIZE (MBTU)	1.155	
NUMBER INSTALLED	24.2 24.2	
FIRST COST (K\$)	2.3 2.3	
ANNUAL COST (K\$)	4.5	
CYCLICAL COST (K\$)	10.1 10.1	
TOTAL (K\$)	36.5	
EQUIPMENT TOTAL	226.3	

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/13/1996 7:54:59 PDL RUN 1
READING, PA 19603 PT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
REPORT- 3EPS ESTIMATED BUILDING ENERGY PERFORMANCE WEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE MBTU -	ELECTRICITY	NATURAL-GAS
CATEGORY OF USE		
SPACE HEAT	80.23	1610.55
SPACE COOL	842.44	0.00
HVAC AUX	397.09	0.00
DOM HOT WTR	0.00	0.00
AUX SOLAR	0.00	0.00
LIGHTS	667.59	0.00
VERT TRANS	0.00	0.00
MISC EQUIP	190.74	0.00
TOTAL	2178.09	1610.55

TOTAL SITE ENERGY 3788.61 MBTU 114.0 KBTU/SQFT-YR GROSS-AREA 114.0 KBTU/SQFT-YR NET-AREA TOTAL SOURCE ENERGY 3151.25 MBTU 245.3 KBTU/SQFT-YR GROSS-AREA 245.3 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 3.2 PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 1.4

NOTE ELECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

		19603				DOE-2.1D BUILDING 4411 - 1		
PH-1	- HOUR	LY-REPORT						B 1- 1
MMDDHH	HW-BOILE R	HW-BOILE R ELECTRIC	hw-boile R Fuel	HERM-REC -CHLR	HERM-REC -CHLR ELECTRIC USE BTU/HR	HERM-REC -CHLR NOM CAP	 	•••••
			USE	BTU/HR	USE	RUNNING		
	BTU/HR	BTU/HR	BTU/HR	BTU/HR	BTU/HK	BTU/HR		
	(1)	(3)	(4)	( 1)	( 3)	( 7)		
MONTHLY	SUMMARY (JAN)							
MIN	14701.	1294.	24024.	٥.	0.	0.		
MX	2221308.	88000.	3058265.	0.	٥.	0.		
SM	250176944.	18504650.	390783008.	0.	٥.	0.		
			525246.		0.	0.		
MONTHLY	SUMMARY (FEB)							
MIN	14701.	1294.	24024. 2954196.	0.	0.	٥.		
MIX	2129863.	88000.	2954196.	0.	٥.	٥.		
SM	198617008.	15088269.	312333216.	າ.	0.	0.		
AV	295561.	22453.	464782.	0.	٥.	٥.		
	SUMMARY (MAR)							
MIN	14701.	1294.	24024.	0.		0.		
MIX	1679385.	38000.	2435478.	٥.				
SM	141382352.	11872891.	228149040.	0.	٥.	. o.		
λV					Э.	0.		
MONTHLY	SUMMARY (APR)							
	14701.		24024.	٥.				
MX	1162773. 59960400.	38000.	1828217.	0.	₹.	<b>0</b> .		
SM	59960400.	5234311.	97772424.	0.				
AV		7270.	135795.	0.	٥.	٥.		
MONTHLY	SUMMARY (MAY)							
MN	ં.	0.	0.	28972.	52302.	1100000.		
MX	0.	0.	0.	690302. 63169120.	517853.	1100000.		
SM	٥.	0.	٥.	63169120.				
AV	0.	0.	0.	84905.	123105.	1100000.		
MONTHLY	SUMMARY (JUN)				-			
MN	0.	0.	0.	28972. 1147748.	52302. 733357.	1100000.		
MX	0.	0.						
SM	0.	0.	0.	173293552.				
AV	٥.	0.	0.	240685.	238841.	1100000.		
MONTHLY	SUMMARY (JUL)							
MN	э.	0.	0.	28972. 1173596.	52302.	1100000.		
MX	٥.	0.				1100000.		
SM	o.	0.	0.			818400000.		
AV	Э.	0.	0.	286130.	244655.	1100000.		

PFAC	ENTECH ENG	INEERING A 19603	EZDOE - ELIT FT. GEORGE G	E SOFTWARE DEVI . MEADE UMCS ST	ELOPMENT INC	DOE-2.1D BUILDING 4411 -	6/13/1996 NEW CONDITIONS	7:54:59	PDL	RUN
H-1		OURLY-REPORT						1	PAGE	2 -
	HW-BOILE	HW-BOILE	HW-BOILE	HERM-REC	HERM-REC	HERM-REC				
	R	R	R	-CHLR	-CHLR	- CHLR				
	LOAD	ELECTRIC		LOAD	ELECTRIC	NOM CAP				
	LUAD	USB	USE		USE	RUNNING				
	BTU/HR			BTU/HR	BTU/HR	RUNNING BTU/HR				
	( 1)	(3)	(4)	( 1)	(3)	(7)				
MONTHLY	SUMMARY (AU	G)								
MN			0.	28972.	52302.	1100000.				
MIX	ō	•	· 0.	28972. 1134693.	730987.	1100000.				
SM	0					818400000.				
AV	0		0.							
MONTHI.Y	SUMMARY (SE	P)								
MN		0.	0.	28972.	52302.	1100000.				
MX	-	0.			728824.	1100000.				
SM	-	. 0.				792000000.				
ΑV	-	. 0.	0.							
MONTHLY	SUMMARY (OC	T)								
	0	. 0.	0.	28972.	52302.	1100000.				
MX	1025830		1665025.	597904.	591354.	1100000.				
SM			39414348.	38216732.	54119148.	818400000.				
AV			52976.							
MONTHLY	SUMMARY (NO	(V)								
MN	14701	1294.	24024.			0.				
MX		. 88000.								
SM	115500696	9801285.	186905920.	٥.	0.	٥.				
ΑV	160418	13613.	259592.	0.	0.	0.				
	SUMMARY (DE					_				
MN	14701		24024.			0.				
MX	1752960		2520886.							
SM	223895312	17611436.	355200192.	0.						
	300935		477420.	o.	0.	0.				
	SUMMARY		_	-	•	^				
	Ç	0.	0. 3058265.	0.		0. 1100000.				
	2221308									
	1013661696		1610558208.			4857600000.				
ΑV	115715	5. 9159.	183854.	95385.	96169.	554521.				

REA SH-1	- HOUT	19603 RLY-REPORT	FT. GEORGE	G, MEADE UMCS	DEVELOPMENT INC S STUDY	BUILDING 441	1 - NEW CONDIT	CIONS	SDL RUN 1
MMDDHH	AHU-1		AHU-1		AHU-1		AHU-2		
	TOT HTG COIL PWR BTU/HR		SUPPLY ELECTRIC KW	COOLING CAPACITY BTU/HR	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	TOT CLG COIL PWR BTU/HR	SUPPLY ELECTRIC KW	
	(5)	( 6)	(49)	(70)	(78)	( 5)	( 6)	(49)	
MONTHLY	SUMMARY (JAN)								
MN	-402798.	0.	0.000	0.	-387286.	-499259.	0.	0.000	1
MX	٥.	0.	6.295	209824.	-387286. 0.	٥.	0.	7.808	l
SM	-59015640.	0.	1586.239	52875556.	-97596120.	-62584944	0	1967.566	i
	-79322.	0.	2.132	71069.	0. -97596120. -131178.	-84120.	0.	2.645	i
MONTHLY	SUMMARY (FEB)						_		
MIN	-399990.	٥.	0.000	٥.	-387286.	-496212.	0.	0.000	
MX	0.	٥.	6.295	209824.	-387286. 0. -88301256.	0.	0.	7.808 1780.178	l
SM	-48701132.	0.	1435.169	47839788.	-88301256.	-48930920.	٥.		
AV	-72472.	0.	2.136	71190.	-131401.	-72814.	0.	2.649	•
	SUMMARY (MAR)					454024			
MIN	-391833.	٥.	0.000 6.295	0.	-387286. 0.	-454014.	0.	0.000	
MX	0.	0.	6.295	230420.	0.	0.	0.	7.808 2154.953	ļ
SM	-35330188.		1737.309	58043904.	-106890984.	-31902280.	0.	2154.953	
AV	-47487.	0.	2.335	78016.	-143671.	-42879.	ű.	2.896	į
	Y SUMMARY (APR)		2 000	.3	-387286.	-106333	0	0.000	
	-312783.		0.000	349134.	-347200:	0.		7 000	i
MX		0.		347134.	-97596120.		٥.	1967.566	
	-14071661.		1586.239	55092520.	-135550.		0.	2.733	,
AV	-19544.	0.	2.203	/651/.	-135550.	-13138.	0.	2.73;	ı
	Y SUMMARY (MAY)				_	_	_		
MN		0.	0.000	0.	0.	0.	U.	0.000	
MX	0. 0.	136146.	0.000 6.295 1586.239	333317.	<b>j</b> .	0.			
SM	0.	7458229.	1586.239	59458168.	٥.		13624313.		
AV	٥.	10025.	2.132	79917.	0.	0.	18312.	2.645	;
	Y SUMMARY (JUN)			•	•	٥.	0.	0.000	
MN	<b>o</b> .		0.000	0. 39 <b>0583.</b> 74974208	0.	0.	77477	0.000	
MX		286026.	6.295	390583.	٥.	٥.	374271. 45794332.	7.808	1
SM AV	o.		1001.774		• • •				
			2.200			-			
MONTHL:	Y SUMMARY (JUL)	0	0.000	a	0.	0.	0.	0.000	,
MN MX	J.	221079	0.000 6.295	370146	ɔ.	0	0. 412239.	7.808	ı
	٦.	1201078.	6.295 1510.704	71878808	ō.	0	55945496.	1873.872	
SM	J.	42040324.	2.031	96544.	ŋ.		75196.		
ΑV	<b>3</b> .	56506.	2.031	70344.	٥.	٥.	, 32,56.	2.313	

EZDOE - ELITE SOFTWARE DEVELOPMENT INC READING. PA 19603 = HOURLY-REPORT FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS PAGE 2- 1 SH-1 -----AHU-2 AHU-1 AHU-1 AHU-2 AHU-2 AHU-1 AHU-1 AHU-1 HEATING TOT HTG TOT HTG TOT CLG SUPPLY COOLING TOT CLG SUPPLY CAPACITY CAPACITY COIL PWR COIL PWR ELECTRIC ELECTRIC COIL PWR COIL PWR BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR KW --- (70) ---(78) ---(5) ----(6) ---(49) ----(5) ---(6) ---(49) MONTHLY SUMMARY (AUG) 0.000 0. ٥. 0. 0.000 MN 0. 385910. 6.295 1737.309 357443. Ο. 295870. ٥. 7.808 MX ٥. 2154.953 81486536. 0. 58901660. SM 0. 43150440. 57998. 2.335 109525. 79169. ΔV ٥. MONTHLY SUMMARY (SEP) 0. 0.000 0. 0.000 6.295 352605. ٥. 0. 321369. 252605. ΜX ٥. 21797450. 1586.239 65059808. ٥. 0. 32337430. 1967.566 Ο. SM 2.203 30274. 90361. 44913. 2.733 ٥. 0. MONTHLY SUMMARY (OCT) -260671. 0.000 Ω -387286. -259509. α. 0.000 MIN 173853. 6.295 1510.704 280685. ٥. 108775. 0. 7.808 ΜX 53691632. -51121784. -3958649. 5996223. 1873.872 -5237630. 2313090. -68712. -5321. 8059. 2.031 3109. ΑV -7040. MONTHLY SUMMARY (NOV) -407358. -368294. 0.000 -387286. 0.000 MN ο. Э. 6.295 517420. ٥. 0. 0. 7.808 MX 0. -92948688. -26321932. 57330564. 1873.872 1510.704 ٥. SM 79626. -129095. -36558. 0. ΑV -37700. 0. 2.098 MONTHLY SUMMARY (DEC) -401741. -387286. -474965. 0.000 MN ٥. 6.295 213459. 0. -97596120. ٥. ٥. 7.808 О. MX 0. -55645948. -53031920. С. 1586.239 52881272. 1967.566 71077. -71279. -131178. 2.132 AV 0. -402798. 0.000 -387286. MN 0. 412239. 321078. 6.295 517420. 0. 0. 7.808

-632051072.

-72152.

-240243808.

-27425.

212599456.

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ENTECH ENGINEERING

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-242532400.

-27686.

DOE-2.1D 6/13/1996

8: 0:20 SDL RUN 1

EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/13/1996 8 BUILDING 4411 - NEW CONDITIONS 8: 0:20 SDL RUN 1 ENTECH ENGINEERING 19603 PT. GEORGE G. MEADE UMCS STUDY READING, PA 19603 - HOURLY-REPORT PAGE 1- 2 \_\_\_\_\_ AHU-3 AHU-3 AHU-3 AHU-3 AHU-4 AHU-2 AHU-3 MMDDHH AHU-2 HEATING TOT CLG SUPPLY COOLING COOLING HEATING TOT HIG COIL PWR ELECTRIC CAPACITY CAPACITY COIL PWR COIL PWR CAPACITY CAPACITY BTU/HR KW BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR ---(5) ---- (70) ----(78) ----(6) --- (49) ---- (70) ---- (78) ----(5) MONTHLY SUMMARY (JAN) -304657. -480388. -572577. ٥. 0 000 ٥. -550935. 258907. MN 0. 295777. 0. 0. MX 0. 0. 0. 8.954 -121057904. -72415736. 74535904. -138835664. -44177240. 2256.509 65244644. 0. -186607. -59378. 3.033 100183. -97333. 87694. -162712. ΑV MONTHLY SUMMARY (FEB) 0.000 -550935. -302854. -480388. -569074. 0. 258907. 8.954 295777. 0. 0. ٥. MX -125613216. -34771208. -109528576 -55977768. 67437248. 0. 2041.603 SM -83300. 3.038 Ο. ΑV 87844. -162989. MONTHLY SUMMARY (MAR) -480388. -550935. -523020. 0.000 ٥. 307474. ٥. 8.954 355503. ٥. 0. -132587232. 0. ΜX -152058096. -25553426. -37658680. Ο. 2471.414 82085776. 71842672. SM 110330. -204379. -34346. 96563. -178209. -50617. 0. 3.322 ΑV MONTHLY SUMMARY (APR) 463268. -550935. -211891. -480388. -359698. ο. 0.000 MN 8.954 528876. 0. -121**6579**04. ο. 0. -138835664. -10570656. -13834005. 2256.509 79412704. SM 69542208. 96586. -168136. -19214. ٥. 3.134 110295. -192827. -14681. ΑV MONTHLY SUMMARY (MAY) ٥. 0 0.000 ٥. 0. 0. MN 397962. 458435. 219986. 9.954 Ο. 0. 0. 14480117. 2256.509 84697230. ο. ο. 74049920. ο. SM 113840. 99529. 0. 19463. 3.033 0. ٥. ΑV MONTHLY SUMMARY (JUN) ٥. 453605. Ο. 0.000 0. 0. MN 510150. 423799. 8.954 0. 0. ο. 2363.961 105303632. 0 0. 50220472. SM 92180736. ٥. Э. Ο. 69751. 3.283 146255. 0. 0 128029. ΑV

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MONTHLY SUMMARY (JUL)

MN

SM

ΑV

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DOE-2.1D 6/13/1996 8: 0:20 SDL RUN 1
BUILDING 4411 - NEW CONDITIONS PAGE 2- 2 EZDOE - ELITE SOFTWARE DEVELOPMENT INC FT. GEORGE G. MEADE UMCS STUDY ENTECH ENGINEERING READING, PA 19603 HOURLY-REPORT SH-1 AHU-2 AHU-3 AHU-3 AHU-3 AHU-3 AHU-3 AHU-4 TOT HTG TOT CLG SUPPLY COOLING HEATING HEATING COOLING CAPACITY COIL PWR COIL PWR ELECTRIC CAPACITY CAPACITY COIL PWR CAPACITY BTU/HR KW BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR ----(5) ---(6) ---(49) ---- (70) ----(78) ----(5) ---- (70) ----(78) MONTHLY SUMMARY (AUG) Ο. 0.000 ٥. 433910. Ο. MN 0. 0. 436683. 8.954 492226. ٥. MX 100244760. 0. 0. 65061972 2471.414 114549432. ٥. ٥. SM 153964. 87449. 3.322 ΑV 134738. ٥. Ο. ٥. ٥. MONTHLY SUMMARY (SEP) 0. 0. 0.000 0. MIN 0. MIX 422170. 0. Ο. O Ω 185696. 360442. 8.954 ٥. Q. 0. Ο. 35012216. 2256.509 91940408. 80567008. Ο. SM 48628. ٥. 3.134 127695. ٥. AV 111899. MONTHLY SUMMARY (OCT) -303866. 0.000 0. -550935. -480388. -188156. MIN 0. MX 345176. 0. -63411268. 196223. 393557. 0. -513**423**8. 8.954 2149.056 Ο. ٥. -72723424. 6314585. 76604008. -4153298. SM 67092104. 90178. -6901. 8487. 102962. -85230. 2.889 -5582. ΑV MONTHLY SUMMARY (NOV) 0.000 -480388. -459349. -550935. -256571. MIN 0. MIX 657976. 751710. 0. -31114950. 8.954 2149.056 ). -132224440. 0. -115293240. 81529112. -20334640. SM 71460808. 0. -43215. 99251. -160130. 113235. -183645. ΑV MONTHLY SUMMARY (DEC) 0.000 -480388. -551986 0. -550935. -305109. MIN 0. MIX 265247. 303479. 0. -121057904. 0. -138835664. 0. -64614116. 0. 8.954 0. -3**966030**0. 2256.509 74552416. 0. SM 65259484. 3.033 -162712. -86847. 100205. 87714. -186607. -53307. ΑV YEARLY SUMMARY -572577. 0.000 0. 0. -550935. -305109. 657976. -480388. 0. 467239. 8.954 751710. 0. MX 904818560. -783994048. -280749504. 232822272 27078.102 1033449216 -899126144. -179220768 103290. -32049. 26578. 3.091 117974. -20459. -102640. λV -39497.

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/13/1996 8: 0:20 SDL RUN 1

SH-1	- HOU	RLY-REPORT			BUILDING 4411 - NEW CONDITIONS	PAGE	1-
	AHU-4						
	TOT CLG	SUPPLY	COOLING	HEATING			
	COIL PWR	ELECTRIC	CAPACITY	CAPACITY			
	BTU/HR	KM	CAPACITY BTU/HR	BTU/HR			
	( 6)	(49)	(70)	(78)			
MONTHLY	SUMMARY (JAN)						
MN	0.	0.000	0. 1 <b>55664</b> .	-293224.			
MX	0.	4.766	155664.	0.			
SM			39227420.				
AV	0.	1.614	52725.	-99318.			
MONTHLY	SUMMARY (FEB)						
MN	0.	0.000	0.	-293224.			
MX	9.	4.766	155664.	0.			
SM	0.	1086.602	35491476.	-66855132.			
AV	0.	1.617	52815.	-99487.			
MONTHLY	SUMMARY (MAR)						
MIN	٥.	0.000	0.	-293224.			
MX	٥.	4.766	178200.	٥.			
SM	0.	1315.360	43107344.	-80929888.			
AV	٥.		57940.				
MONTHLY	SUMMARY (APR)						
MIN	0.	0.000	0. 270729.	-293224.			
MX	0.	4.766	270729.	0.			
SM	0.	1200.981	41262624.	-73892512.			
AV			57309.	-102628.			
MONTHLY	SUMMARY (MAY)						
MN	0.	0.000	0.	0.			
MX	111164.	1 766	749625	0.			
SM	6051088.	1200.981	44516536.	0.			
AV	8133.		59834.	0.			
MONTHLY	SUMMARY (JUN)						
	0.	0.000	0. 279107.	0.			
MX	224536.	4.766	279107.	0.			
SM		1258.171					
AV	33971.	1.747	77433.	0.			
MONTHLY	SUMMARY (JUL)						
MN	0.	0.000	0.	0.			
MX		4.766	280402.	0.			
SM	31606610.	1143.792					
AV	42482.	1.537	71612.	0.			

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 6/13/1996 8: 0:20 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS

- HOURLY-REPORT PAGE 2- 3 AHU-4 AHU-4 AHU-4 AHU-4 TOT CLG SUPPLY COOLING HEATING CAPACITY ELECTRIC CAPACITY COIL PWR BTU/HR BTU/HR BTU/HR KW ---(78) ----( 6) --- (49) ---- (70) MONTHLY SUMMARY (AUG) 0.000 0. MN 229142. 4.766 268668. 0. MX 1315.360 60649580. 0. SM 32781380. 1.768 81518. 44061. ΑV MONTHLY SUMMARY (SEP) MN 0. 191917. 0.000 0. 0. 262547. 4.766 0. MX 16552510. 1200.981 48330232. SM 67125. ΑV 22990. 1.668 0. MONTHLY SUMMARY (OCT) 0. 90081. 0.000 Ω -293224. 208366. 4.766 ο. MX 1143.792 40165216. -38705596. 2037468. SM 53986. -52024. ΑV MONTHLY SUMMARY (NOV) 0.000 0. -293224. MN 0. 394086. 4.766 1**143**.792 0. 0. 42770988. -70373824. SM 0. -97741. ΑV 1.589 ٥. MONTHLY SUMMARY (DEC) -293224. MIN 0. 4.766 160615. 0. -73892512. SM 0. 1200.981 39236820. 1.614 ΑV 0. YEARLY SUMMARY 0. 0.000 247132. MN 4.766 394086. 0. -478541984. 14411.776 543789568. SM 113488096. 1.645 62076. -54628. 12955. AV

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 6/13/1996 8: 0:20 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
REPORT- PV-A EQUIPMENT SIZES WEATHER PILE- BALTIMORE, MD

EQUIPMENT	NUMBER NUMBER SIZE INSTD SIZE INSTD	SIZE INSTD SIZE INSTD	NUMBER NUMBER SIZE INSTD SIZE INSTD
	(MBTU/H) AVAIL (MBTU/H) AVA	L (MBTU/H) AVAIL (MBTU/H) AVAIL	(MBTU/H) AVAIL (MBTU/H) AVAIL
HW-BOILER	4.000 2 2		
HERM-REC-CHLR	1.100 1 1		

ENTECH ENGINEERING SZDOE - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 6/13/1996 8: 0:20 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY WEATHER FILE- BALTIMORE, MD

					s	ITE E	NERG	Y					• SOURCE
	2	3	4	5	6	7	8	9	10	11	12	13	• 14
MONTH	TOTAL HEAT LOAD	TOTAL COOLING LOAD	TOTAL ELECTR LOAD	RCVRED ENERGY	WASTED RCVRABL ENERGY	FUEL INPUT COOLING	ELEC INPUT COOLING	FUEL INPUT HEATING	ELEC INPUT HEATING	FUEL INPUT ELECT	TOTAL FUEL INPUT	TOTAL SITE ENERGY	• SOURCE
JAN	250.2	0.0	120.3 35.2E	0.0	0.0	0.0	0.0 0.0E	390.8	24.6 7.2E	0.0	390.8	511.1	* 752.0 *
FEB	198.6	0.0	107.1 31.4E	0.0	0.0	0.0	0.0 0.0E		20.6 6.0E		312.3	419.5	• 634.1 •
MAR	141.4	0.0	121.7 35.6E		0.0	0.0	0.0 0. <b>0</b> E	229.2	18.0 5.3E		228.2	349.8	• 593.5 •
APR .	60.0	0.0	106.4 31.2E		0.0	0.0	0.0 0.0E	97.8	11.1 3.3E		97.8	204.2	* 417.4 *
MAY	0.0	63.2	199.3 58.4E		0.0	0.0	103.6 30.3E		0.0 0.0E	0.0	0.0	199.3	* 598.4 *
JUN	0.0	173.3	282.9 82.8E		0.0	0.0	183.6 53.8E		0.0 0.0E	0.0	0.0	282.9	• 849.5 •
JUL	0.0	212.9	285.7 83.7E		0.0	0.0	194.0 56.3E	0.0	0.0 0.0E	0.0	0.0	285.7	* 857.9 *
AUG	0.0	221.5	311.0 91.1E		0.0	0.0	207.3 60.7E		0.0E	0.0	0.0	311.0	• 934.0 •
SEP	0.0	126.6	244.3 71.6E		0.0	0.0	149.0 43.6E	0.0	0.0 0.0E	0.0	0.0	244.3	* 733.7 *
oct	24.1	38.2	173.0 50.7E		0.0	0.0	76.1 22.3E	39.4	5.3 1.5E	0.0	39.4	212.4	• 559.0 •
VOK	115.5	0.0	107.0 31.3E	0.0	0.0	0.0	0.0E		15.7 4.65		186.9	293.9	* 508.2 *
DEC	223.9	0.0	119.4 35.0E		0.0	0.0	0.0 0.0E	355.2	23.7 5.9E	0.0	355.2	474.6	* 713.7 *
	*****	******	******	*=====	******		******	******	******	******	•••••		* =====
	1013.7	835.6	2178.0 637.9E	0.0	0.0	0.0	913.6 267.6E	1610.6	118.9 34.8E	0.0	1610.6	3788.6	• 9151.2 •

NOTE-- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES FOLLOWED BY E ARE IN MWH (THOUSANDS OF KWH)

ENTECH ENGINEERING BZDOE - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 6/13/1996 8: 0:20 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
REPORT- PS-B MONTHLY PEAK AND TOTAL ENERGY USE WEATHER FILE- BALTIMORE, MD

REPORT F5-B PARTIELL FEAR AND 1017EL MANGE 000

UTILITY-ELECTRICITY NATURAL-GAS мо TOTAL (MBTU) 120.271 390.785 3058.265 PEAK (KBTU) 467.634 JAN 31/17 17/ 7 107.136 312.336 TOTAL (MBTU) PEAK (KBTU) 467.634 2954.196 FEB DY/HR 28/ 7 14/ 7 121.664 TOTAL (MBTU) MAR PEAK (KBTU) 467.634 2435.478 28/ 7 7/ 7 DY/HR TOTAL (MBTU) 106.436 97.772 APR PEAK (KBTU) 467.634 1828.217 8/7 11/7 DY/HR TOTAL (MBTU) 199.254 0.000 MAY PEAK (KBTU) 1005.411 0.000 6/17 31/ 1 DY/HR 0.000 TOTAL (MBTU) 282.884 0.000 JUN PEAK (KBTU) 1120.914 27/15 30/ 1 DY/HR 285.672 0.000 TOTAL (MBTU) 1120.855 0.000 PEAK (KBTU) JUL DY/HR 25/14 31/ 1 TOTAL (MBTU) 311.020 0.000 AUG PEAK (KBTU) 0.000 DY/HR 18/15 31/ 1 TOTAL (MBTU) 244.309 0.000 SEP PEAK (KBTU) 1116.381 0.000 30/1 DY/HR 173.032 TOTAL (MBTU) 39.414 PEAK (KBTU) 978.911 1665.025 OCT 13/16 24/ 7 DY/HR 186.907 TOTAL (MBTU) 106.991 2199.719 PEAK (KBTU) NOV 28/11 25/8 TOTAL (MBTU) 119.378 355.203 DEC PEAK (KBTU) 467.634 28/ 7 2520.886 27/7 DY/HR ONE YEAR 2178.047 1610.568

USE/PEAK

1120.914

3058.265

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 6/13/1996 8: 0:20 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

HEATING LOADS		PCT OF TOTAL LOAD
HW-BOILER	1013.7	100.0
LOAD SATISFIED TOTAL LOAD ON PLANT	1013.7 1013.7	100.0
COOLING LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
HERM-REC-CHLR	935.6	100.0
LOAD SATISFIED TOTAL LOAD ON PLANT	835.6 835.6	100.0
ELECTRICAL LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
ELECTRICITY	2173.3	100.0
		**************

## SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
HEATING LOADS	1013.7	1013.7	0.000	0.000	0
COOLING LOADS	835.6	835.6	12.472	0.420	122
ELECTRICAL LOADS	2178.0	2178.0	0.000	0.000	0

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/13/1996 8: 0:20 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER FILE- BALTIMORE, MD

EQUIPMENT	AVG OPER RATIO	MAX LOAD (MBTU)	MON DAY	SIZE OPER (MBTU) HRS				
HW-BOILER	0.054	2.221	1 17 7	4.000 4728				
HERM-REC-CHLR	0.172	1.174	7 18 8	1.100 4416				

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/13/1996 8: 0:20 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
REPORT- PS-I EQUIPMENT LIFE CYCLE COSTS WEATHER FILE- BALTIMORE, MD

E	O	tī	Ī	p	м	B	N	т		т	0	т	A	L	s	
									- <i></i> -							
HW	r-BC	ILE	R								189	. 8				
				NO	MIN	IAL	SI	ZΕ	(MBTU)							4.000
				NU	MBE	R I	INS:	[ALI	LED							2
				FI	RST	•	C	OST	(K\$)					179	. 6	179.6
				AN	NUA	L	C	OST	(K\$)					4	. 6	4.6
				CY	CLI	CAI	L C	ST	(KS)					5	. 6	5.6
						TO	TAL		- (K\$)							189.8
HE	RM-	REC	-CH	LR							36	. 5				
				NC	MIN	IAL	SI	ZE	(MBTU)							1.100
				N	MBE	R :	INS	TAL	LED							1
				FI	RST		C	OST	(K\$)					24	. 2	24.2
				A	NU/	L.	C	ost	(K\$)					2	. 3	2.3
				C	CL	CA	LO	OST	(K\$)					10	1.1	10.1
									- (K\$)							36.5
										-						
		ΕÇ	UII	ME	T	TO	TAL				226	5.3				

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE WEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE MBTU -	ELECTRICITY	NATURAL-GAS
ATEGORY OF USE		
SPACE HEAT	80.23	1610.55
SPACE COOL	842.44	0.00
HVAC AUX	397.09	0.00
DOM HOT WTR	0.00	0.00
AUX SOLAR	0.00	0.00
LIGHTS	667.59	0.00
VERT TRANS	0.00	0.00
MISC EQUIP	190.74	0.00
TOTAL	2178.09	1610.55
TOTAL	22/0.03	1010.33

TOTAL SITE ENERGY 3788.61 MBTU 114.0 KBTU/SQFT-YR GROSS-AREA 114.0 KBTU/SQFT-YR NET-AREA TOTAL SOURCE ENERGY 8151.25 MBTU 245.3 KBTU/SQFT-YR GROSS-AREA 245.3 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 3.2
PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 1.4

NOTE SLECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

ENTECH ENGINEERING BZDOE - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 6/13/1996 8: 0:20 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
PH-1 - HOURLY-REPORT PAGE 1- 1

PH-1	= HOUR	LY-REPORT					 PAGE 1-
<b>МО</b> ДНИ	HW-BOILE	HW-BOILE	HW-BOILE	HERM-REC	HERM-REC	HERM-REC	
	R	R	R	-CHLR	-CHLR	-CHLR	
	LOAD	ELECTRIC	FUEL	LOAD	ELECTRIC	NOM CAP	
		USE	USE		USE	RUNNING	
	BTU/HR	BTU/HR	BTU/HR	BTU/HR	BTU/HR	BTU/HR	
	( 1)	(3)	( 4)	( 1)	(3)	( 7)	
MONTHLY	SUMMARY (JAN)						
MN	14701.	1294.	24024.	0.	٥.	0.	
MX	2221308.	88000.	3058265.	0.	٥.	0.	
SM	250176944.	18504650.	390783008.	0.	0.	0.	
AV	336259.	24872.	525246.	0.	0.	0.	
MONTHLY	SUMMARY (FEB)						
MIN	14701.	1294.	24024.	0.	0.	٥.	
MX	2129863.	88000.	2954196.	0.	0.	٥.	
SM	198617008.	15088269.	312333216.	0.	0.	٥.	
AV	295561.	22453.	464782.	0.	0.	۵.	
MONTHLY	SUMMARY (MAR)						
MN	14701.	1294.	24024.	0.	0.	٥.	
MX	1679385.	88000.	2435478.	0.	0.	Э.	
SM	141382352.	11872891.	228149040.	0.	0.	0.	
AV	190030.	15958.	306652.	0.	0.	0.	
MONTHLY	SUMMARY (APR)						
MN	14701.	1294.	24024.	٥.	o.	٥.	
MX	1162773.	88000.	1328217.	٥.	0.	٥.	
SM	59960400.	5234311.	97772424.	J.	0.	0.	
AV	83278.	7270.	135795.	0.	0.	a.	
MONTHLY	SUMMARY (MAY)						
MN	0.	0.					
MX	0.	0.	0.	690302.			
SM	0.	٥.	0.				
VA	ð.	0.	0.	84905.	123108.	1100000.	
	SUMMARY (JUN)	•	_	20055	-	1100000	
MIN	0.	0.	0.		52302.		
MX	0.	0.	0.				
SM	0.	0.		173293552.			
AV	0.	0.	0.	240685.	238841.	1100000.	
	SUMMARY (JUL)	_	•	20022	52302.	1100000.	
MIN	0.	0.	0.		32302.	1100000.	
MX	0.	0.	0			1100000.	
SM	0.	0.		212880704.			
AV	0.	0.	0.	286130.	244655.	1100000.	

REAL	ENTECH ENGINE	19603		E SOFTWARE DEVI . MEADE UMCS ST					
PH-1	= HOUR	LY-REPORT							
	HW-BOILE	HW-BOILE	HW-BOILE	HERM-REC	HERM-REC	HERM-REC			
	R	R	R	-CHLR	-CHLR	-CHLR			
	LOAD	ELECTRIC	FUEL	LOAD	ELECTRIC	NOM CAP			
		USE	USE		USE	RUNNING			
	BTU/HR	BTU/HR	BTU/HR	BTU/HR	BTU/HR	BTU/HR			
	( 1)	(3)	(4)	( 1)	( 3)	(7)			
MONTHLY	SUMMARY (AUG)								
MIN	0.	0.	0.	28972. 1134693.	52302.	1100000.			
MX	٥.	0.	0.	1134693.	730987.	1100000.			
SM	0.	0.	0.	221450800.					
AV	0.	0.	0.	297649.	262547.	1100000.			
MONTHLY	SUMMARY (SEP)								
MN	0.	٥.				1100000.			
MX	0.	0.		1125296.					
SM	0.	0.				792000000.			
AV	0.	0.	0.	175777.	190838.	1100000.			
MONTHLY	SUMMARY (OCT)								
MIN	0.	0.	0.	28972.	52302. 591354.	1100000.			
MIX	1025830.	88000.							
SM	24129002.		39414348						
AV	32431.	2850.	52976.	51367.	86182.	1100000.			
MONTHLY	SUMMARY (NOV)				_				
MIN	14701.		24024.						
MX	1477478.	88000.		٥.					
SM	115500696.		186905920.	0.					
AV	160418.	13613.	259592.	0.	0.	Э.			
	SUMMARY (DEC)			•	•	2			
MN	14701.	1294.		0.					
MX	1752960.	88000.		0.					
SM	223895312.	17611436.		0.	0.				
AV	300935.	23671.	477420.	0.	0.	٥.			
	SUMMARY	_	0. 3058265.	0.	0.	. o.			
MIN	0.	0.	0.	1173596.					
MX									
	1013661696.	30233024.		95385.		554521.		-	
ΑV	115715.	9159.	183854.	30305.	30103	334321.			

SH-1	DING, PA = HOUR	19603 RLY-REPORT	FT. GEORGE	G. MEADE UMC	S STUDY	BUILDING 441	11 - NEW CONDIT	PAGE 1-	
MMDDHH	AHU-1	AHU-1	AHU-1	AHU-1	AHU-1	AHU-2	AHU-2	AHU-2	•
	TOT HTG COIL PWR BTU/HR	TOT CLG COIL PWR BTU/HR	SUPPLY ELECTRIC KW	COOLING CAPACITY BTU/HR	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	TOT CLG COIL PWR BTU/HR	SUPPLY ELECTRIC KW	
	( S)	(6)	(49)	(70)	(78)	(5)	( 6)	(49)	
MONTHLY	SUMMARY (JAN)								
MIN	-406697.	0.	0.000	0.	-387286.	-504685.	٥.	0.000	
MX	0.	0.	6.295	292823.	0.	0.	0.	7.808	
SM	-44150900.	0.	1586.239	53094436.	0. -97596120.	-43183352.	0.	1967.566	
AV	-59343.								
MONTHLY	SUMMARY (FEB)								
MN	-406611.	0.	0.000	٥.	-387286.	-504442.	0.		
MX	0.	0.	6.295	227941.	0. -88301256.	٥.	0.	7.808 1780.178	
SM	-36660284.	0.							
ΑV	-54554.	0.	2.136	71547.	-131401.	-50094.	0.	2.649	
	SUMMARY (MAR)								
MIN	-354899.	٥.	0.000	٥.	-38 <b>7286</b> . 0.	-400541.	0.	0.000	
MX	0.	٥.	6.295	286089.			0.	7.808 2154.953	
SM	-24349440.		1737.309		-106890984.				
λV	-32728.	0.	2.335	79107.	-143671.	-25679.	0.	2.896	
	SUMMARY (APR)								
	-286605.	0.	0.000	0.	-387286.	-232579.	0.	0.000	
MX	0.	0.	6.295	367257.					
SM	-8675816.	٠ 0.	1586.239	56912784.	-97596120.			1967.566	
AV	-12050.	0.	2.203	79046.	-135550.	-8054.	٥.	2.733	
	SUMMARY (MAY)								
MIN	0.				0.	0.	0.	0.000	
MX	0.	113846.							
SM	0.		1586.239				14796900.		
ΑV	0.	10254.	2.132	80669.	0.	0.	19888.	2.645	
	SUMMARY (JUN)				_		_		
MN	0.	0.				0.			
MX	0.	211699.		355107.					
SM	٥.						40541612.		
ΑV	0.	38670.	2.308	97646.	0.	0.	56308.	2.863	
	SUMMARY (JUL)		0.000	•	0.	0.	0.	0.000	
MIN		222607	6.000	0. 312370.	0.	٥.	307685.	7.808	
MX	٥.		5.495	64716864.	0.		46190472.		
SM	0.					0.			
AV	0.	46185.	2.031	86985.	0.	u.	52084.	2.519	

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/13/1996 8: 6: 3 SDL RUN 1
READING, PA 19603 PT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS

REAL H-1		19603 RLY-REPORT	PT. GEORGE	G. MEADE UMC	s STUDY	BUILDING 44	11 - NEW CONDIC	rions	PAGE 2-
							AHU-2		
	AHU-1	AHU-1	AHU-1	ARU-1	AHU-1	AHU-2	AHU-2	AHU-2	
	TOT HTG	TOT CLG	SUPPLY	COOLING	HEATING	TOT HTG	TOT CLG	SUPPLY	
	COIL PWR	COIL PWR	ELECTRIC	CAPACITY	CAPACITY	COIL PWR	COIL PWR	ELECTRIC	
	BTU/HR	BTU/HR	KW	BTU/HR	BTU/HR	BTU/HR	BTU/HR	KW	
	( 5)	(6)	(49)	(70)	(78)	(5)	( 6)	(49)	
MONTHLY	SUMMARY (AUG)								
MIN	0.	0.	0.000						)
MX		223538.		384747.		0.	293181.	7.80	3
SM	0.	35075348.	1737.309	74098160.	0.	0.	48665088.	2154.95	3
AV	0.	47144.	2.335	99594.	0.	0.	65410.	2.89	5
MONTHLY	SUMMARY (SEP)								
MIN	0.	0.	0.000	0. 3 <b>0536</b> 9.	0.		0. 238295.	0.000	)
MIX	0.	175879.	6.295	305369.	0.		238295.	7.80	
SM	0.		1586.239			0.	29951984.	1967.56	5
AV	0.	27052.	2.203	89147.	0.	0.	41600.	2.73	3
MONTHLY	SUMMARY (OCT)								
MN	-218146.	0.	0.000 6. <b>2</b> 95	0.	-387286.	-198894.	0.	0.000	)
MX	0.	96055.	6.295	311452.	0.	0.	155634.	7.80	3
SM	-3380772.	3049433.	1510.704	56091108.	-51121784.	-2083858.	7254829.	1873.87	2
ΑV	-4544.	4099.	2.031	75391.	-68712.	-2801.	9751.	2.519	,
MONTHLY	SUMMARY (NOV)								
	-322434.	0.	0.000	٥.	-387286.	-385073.	0.	0.000	)
MX	0.	0.	6.295 1510.704	538989.	0.	0.	٥.	7.808	3
SM	-19058886.	٥.	1510.704	59268940.	-92948688.	-16589460.	0.	7.808 1873.872	2
AV	-26471.	0.	2.098	82318.	-129095.	-23041.	0.	2.60	3
	SUMMARY (DEC)								
MN	-354803.	0.	0.000	0.	-387286.	-424321.			
MX	0.	٥.	6.295	237466.					-
	-39055336.					-38046148.		1967.566	
ΑV	-52494.	0.	2.132	71379.	-131178.	-51137.	0.	2.645	<b>;</b>
YEARLY	SUMMARY								
MN	-406697.	0.	0.000	0.	-387286.	-504685.	٥.		
MX	0.	231697.	6.295 19034.869	538989.	0.	0.	307685.	7.808	3
SM	~175331424.	127435520.	19034.869	718732352.	-632051072.	-158469664.	187400896.	23610.789	<b>;</b>
ΑV	-20015	14547.	2.173	82047	-72152.	-18090.	21393.	2.695	•

DOE-2.1D 6/13/1996 8: 6: 3 SDL RUN 1 BUILDING 4411 - NEW CONDITIONS EZDOE - ELITE SOFTWARE DEVELOPMENT INC FT. GEORGE G. MEADE UMCS STUDY ENTECH ENGINEERING READING, PA 19603 - HOURLY-REPORT PAGE 1- 2 SH-1 AHU-3 AHU-3 AHU-4 AHU-3 AHU-3 MMDDHH AHU-2 AHU-2 AHU-3 HEATING TOT HTG COOLING TOT HTG TOT CLG SUPPLY HEATING COOLING ELECTRIC CAPACITY CAPACITY COIL PWR COIL PWR CAPACITY COIL PWR CAPACITY BTU/HR BTU/HR BTU/HR BTU/HR KW BTU/HR BTU/HR BTU/HR ---- (78) ----(5) ---- (70) ----(5) ---(6) --- (49) ---- (78) --- (70) MONTHLY SUMMARY (JAN) -578800. 0.000 n -550935. -307946 -480388. MN 776620. 0. 0. Ο. 8.954 1081096. 0. 0. MX -121057904. 2256.509 -138835664. -32659280. -50079016. 76552152. 66553156. ٥. SM -43897. -186607. -67311. 102893. -162712. ΑV 89453. MONTHLY SUMMARY (FEB) -550935. -307869. -578510. -480388. ٥. 8.954 401563. 0. 0. 331906. MX 0. -125613216. -25581350. -109528576. -38456120. э 2041.603 69018992. 60097688. SM -57226. 3.038 102707. -186924. 89431. າ. -162989. ٨V MONTHLY SUMMARY (MAR) 0.000 -550935. -267456. -480388. -462111. a 466124. 0. MN 589712. 3.954 0. -132587232. 0. -22913564. ٥. -17303406. -152058096. 2471.414 86071640. SM 74631112. 3.322 -178209. -30798. ٥. 115688. -204379. -23257. 100311. ΑV MONTHLY SUMMARY (APR) 0. -480388. -276980. 0.000 -550935. -174686. MN ). 50**5801**. 583771. 0. -7249838. o. o. 0. 3.954 ο. 0. MX -138835664. 2256.509 86381104. -6209848. -121057904. 74895456. -10069. 3.134 119974. -192827. -8625. 104021. -168136. ΑV MONTHLY SUMMARY (MAY) 0.000 0. 0. 0. 0. 413912. 0. MN 490825. 197365. ٥. 0. 0. 3.954 MX 2256.509 87563040 15658864. 76365440. α. Ο. 21047. 3.033 117692. ٥. ٥. ٥. 102642. ΑV 0. MONTHLY SUMMARY (JUN) 0.000 0. 0. 0 ٥ 0. 0. 469195. MN 556570. O. 313917. 8.954 ٥. 0. MX 2363.961 99395576. 44061112. 87028104. ο. 0. 61196. 3.283 138049. n ٥ ٥. 120872. ٥. ΑV MONTHLY SUMMARY (JUL) 0.000 ٥. Ο. ٥. Ο. MN 397919. 0.

334079.

67934.

50543032.

0

0.

0.

MX

SM

AV

80071984.

107624.

456816.

90965296.

122265.

٥.

0.

8.954

2.889

2149.056

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/13/1996 8: 6: 3 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS

REAL H-1	DING, PA = HOUT	19603 RLY-REPORT	FT. GEORGE	. G. MEADE OMCS			II - NEW CONDI	PAGE	2 -
	AHU-2	AHU-2	AHU-3	AHU-3	AHU-3	AHU-3	AHU - 3	AHU-4	
	CAPACITY	CARACTTY	TOT HTG COIL PWR BTU/HR	COIL PWR	ELECTRIC	CAPACITY	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	
	(70)	(78)	(5)	(6)	(49)	(70)	(78)	(5)	
ONTHLY	SUMMARY (AUG)								
MN	0.	٥.	0.	0.	0.000	0.	0.		
MX	461587.	0.	0.	329037.	8.954	694468.	0.		
SM	91524528.	0.	0.	53278688.	2471.414	104430968.	0.		
	123017.	0.	0. 0. 0.	71611.	3.322	140364.	0.	0.	
ONTHLY	SUMMARY (SEP)					_	_	_	
MN	0.	0.	0. 0. 0.	0.	0.000	0.	0.	0.	
MX	480889.	0.	0.	2 <b>75775</b> .	8.954	591749.	0.		
5M	80467360.	0.	0.	32195992.	2256.509	92360280.	0.		
AV	111760.		0.	44717.	3.134	128278.	0.	0.	
	SUMMARY (OCT)			_		•	550035	151022	
MIN	0.	-480388.	-233498. 0.	0.	0.000	545007	-220332.	-134023.	
MX	459724.	0.	Ο.	175971.	8.954	545907.	77777474	2505220	
SM		-63411268.	-2844316.	7656847.	2149.056	83123232.	-/2/23424.	-2595228. -3488.	
ΑV	96742.	-85230.	-3823.	10291.	2.889	111725.	-97747.	-3488.	
	SUMMARY (NOV)		-432112.	2	2 000	2	-550035	-2271.17	
MM	0.	-480388.	-432112.	9.	9.000	240127	-330333.	-25/24/.	
MX	721337.	0.	U.	J.	3.754	340127.	0. -132224440.	-14009775	
			-19802990.	J.	2147.036	152401	-183645.	-19009323.	
ΑV	106151.	-160130.	-27504.	J.	2.965	122491.	-103043.	-13457.	
ONTHLY	SUMMARY (DEC)		100103	0	0.200	a	-550935	-282797	
MN	0.	-480388.	-498183. 0.	o.	3.300	4252R1	0	0	
MX	339827.	0.	4.451700	0.	7756 509	75616477	-138835664.	-29063630.	
			-44451796. -59747.	0.		101635	-186607.	-39064	
VA	38668.	-162712.	-33/4/.	0.	3.033	101033.	200007.	33001.	
	SUMMARY	400202	-578800.	a	0.000	n	-550935	-307946.	
MN	0.	-480388.	-5/8800.	334079	g 05.1	1081096	n	3.	
MX	776620.	0.	-185797648.	201294544	27078 102	1039672448	-499126144	-127422080	
SM	906008768.	-/83994048.	-185797648. -21210.	22219.	3 001	119684	-102640	-14546	
ΑV	103426.	-89497.	-21210.	23219.	3.091	113004.	- 102040.	-24340.	

ENTECH ENGINEERING

EZDOE - ELITE SOFTWARE DEVELOPMENT INC FT. GEORGE G. MEADE UMCS STUDY

DOB-2.1D 6/13/1996 8: 6: 3 SDL RUN 1 BUILDING 4411 - NEW CONDITIONS

19603 READING, PA 19603 HOURLY-REPORT PAGE 1- 3 ..... ....... AHU-4 AHU-4 AHU-4 AHU-4 MMDDHH TOT CLG SUPPLY COOLING HEATING COIL PWR ELECTRIC CAPACITY CAPACITY BTU/HR BTU/HR BTU/HR ---- (70) --- (78) ---- (49) ----(6) MONTHLY SUMMARY (JAN) -293224. ٥. 0. 0.000 0. -73**892**512. 751391. 4.766 ΜX 0. 1200.981 40796724. SM ٥. 54834. -99318. 1.614 λV MONTHLY SUMMARY (FEB) 0. -293224. MN 0. 236072. 0. 4.766 MΧ -66855132. 36599784. ٥. 1086.602 1.617 -99487. ΑV 0. MONTHLY SUMMARY (MAR) -293224. ٥. 0.000 4.766 374278. o. O. MX -80929888. 1315.360 45933120. SM 61738. -108777. ΑV 0. 1.768 MONTHLY SUMMARY (APR) -293224. 0.000 ). -73892512. 4.766 358052. MX Э. 1200.981 45712848. SM -102628. À۷ ٥. 1.668 63490. MONTHLY SUMMARY (MAY) ο. 0.000 4.766 334224. Э. 100542. ΜX 1200.981 46668648. 62727. 6246523. SM 8396. ΑV 1.614 MONTHLY SUMMARY (JUN) 0. 0.000 166114. 4.766 ХM 53007532. 73622. 21230076. SM 29486. ΑV 1.747 MONTHLY SUMMARY (JUL) ٥. 0.000 176533. 4.766 235639. 0. ΜX 1143.792 47840804. 25789556. SM 64302. 34663. 1.537

DOB-2.1D 6/13/1996 8: 6: 3 SDL RUN 1 BUILDING 4411 - NEW CONDITIONS ENTECH ENGINEERING FT. GEORGE G. MEADE UMCS STUDY READING, PA 19603 - HOURLY-REPORT PAGE 2- 3 SH-1 ...... AHU-4 AHU-4 AHU-4 AHU-4 COOLING CAPACITY HEATING TOT CLG SUPPLY CAPACITY ELECTRIC COIL PWR BTU/HR BTU/HR KW BTU/HR ----(78) ---(70) ----(6) ----(49) MONTHLY SUMMARY (AUG) 0. 171903. 0.000 0. 0. MIN 0. 4.766 1315.360 396167. 55357224. SM 26616668. 35775. 1.768 ΑV MONTHLY SUMMARY (SEP) 0.000 0. 1**45564**. MN 4.766 370315. 0. MX 50018172. 69470. 14739209. 1200.981 ٥. 1.668 ΑV 20471. MONTHLY SUMMARY (OCT) -293224. 0. 80761. 0.000 4.766 307317. MX -38705596. 2771471. 1143.792 44808444. SM 60226. -52024. λV 3725. 1.537 MONTHLY SUMMARY (NOV) 0. -293224. 0.000 4.766 1143.792 453351. 0. МX 0. -70373824. 47193552. ٥. SM 1.589 65547. -97741. ΑV MONTHLY SUMMARY (DEC) ٥. 0.000 -293224. MN 0. 260211. 0. 4.766 1200.981 0. -73892512. 40027096. SM 0. -99318. 1.614 53800. ΑV 0. YEARLY SUMMARY 0.000 ٥. 0. -293224.

MN

SM

ΑV

176533.

97393496.

11118.

4.766 14411.776

1.645

751391.

63238.

553963904.

0. -478541984.

-54628.

EZDOE - ELITE SOFTWARE DEVELOPMENT INC

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 6/13/1996 8: 6: 3 PDL RUN 1
READING, PA 19603 PT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
REPORT- PV-A EQUIPMENT SIZES WEATHER FILE- BALTIMORE, MD

NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER SIZE INSTO SIZE INSTO SIZE INSTO SIZE INSTO SIZE INSTO (MBTU/H) AVAIL (MBTU/H) AVAIL (MBTU/H) AVAIL (MBTU/H) AVAIL (MBTU/H) AVAIL (MBTU/H) AVAIL

HW-BOILER

4.000 2 2

HERM-REC-CHLR 1.100 1 1

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 6/13/1996 8: 6: 3 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY WEATHER FILE- BALTIMORE, MD

SITE ENERGY SOURCE 6 9 9 10 11 12 13 14 5 2 3 4 SLEC FUEL TOTAL TOTAL TOTAL TOTAL TOTAL WASTED FUEL ELEC FUEL TOTAL INPUT INPUT INPUT INPUT INPUT FUEL SITE SOURCE RCVRED RCVRABL HEAT COOLING FLECTR ENERGY ENERGY COOLING COOLING HEATING HEATING ELECT INPUT ENERGY ENERGY MONTH LOAD LOAD LOAD ----------. . . . . . . . **. . .** . . . 0.0 402.2 633.6 115.5 0.0 286.7 JAN 180.3 0.0 0.0 0.0E 5.8E 33.3E 16.7 229.6 0.0 229.6 332.8 539.5 0.0 0.0 FEB 143.4 0.0 103.2 0.0 0.0E 4.9E 30.2E 0.0 151.9 13.5 0.0 151.9 269.1 0.0 0.0 504.0 MAR 93.6 0.0 117.2 0.0 34.3E 0.0E 4.0E 0.0 á1.3 8.6 0.0 61.3 165.2 373.4 APR 37.5 0.0 103.9 0.0 0.0 0.0 0.0E 2.5E 30.4E 96.6 0.0 0.0 0.0 0.0 192.2 577.3 59.8 192.2 0.0 0.0 0.0 MAY 0.0 28.3E 56.3E 170.0 3.3 148.6 269.3 0.0 0.0 0.0 0.0 0.0 0.0 269.3 808.8 JUN 0.0 49.8E 0.0E 78.9E 172.8 264.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 264.5 794.3 JUL 0.0 172.3 50.6E 0.0E 77 SE 187.6 0.0 291.3 0.0 0.0 0.0 0.0 0.0 0.0 291.3 874.8 AUG 0.0 179.1 54.9E 0.0E 85.3E 237.4 0.0 0.0 0.0 142.1 0.0 a.a 0.0 0.0 237.4 712.9 111.3 SEP 0.0 41.6E 0.0E 69.5E 69.2 36.2 165.1 0.0 0.0 0.0 26.2 4 3 0.0 26.2 191.2 521.9 16.0 OCT 20.3E 1.2E 48.3E 0.0 12 1 103.4 0.0 0.0 0.0 123.4 0.0 128 4 231.9 439.1 0.0 NOV 79.0 0.0E 3.5E 30.3E 114.6 0.0 0.0 0.0 0.0 253.7 18.9 0.0 258.7 373.3 602.8 DEC 0.0 160.5 5.5E 0.0E 33.6E 3220.6 • 838.2 0.0 1142.8 94.0 0.0 1142.8 7382.4 0.0 707.3 2077.8 0.0 608.5E

NOTE-- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES FOLLOWED BY E ARE IN MWH (THOUSANDS OF KWH)

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/13/1996 8: 6: 3 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
REPORT- PS-B MONTHLY PEAK AND TOTAL ENERGY USE MEATHER FILE- BALTIMORE, MD UTILITY- ELECTRICITY NATURAL-GAS

MO	UTILITY-	ELECTRICITY	NATURAL-GAS
	TOTAL (MBTU)	115.505	286.729
7331	PEAK (KBTU)	466.855	2816.991
JAN	DY/HR	31/17	17/ 7 -
	DY/RK	31/1/	1// /
	TOTAL (MBTU)	103.207	229.561
PEB	PEAK (KBTU)	466.855	2697.603
	DY/HR	28/ 7	14/ 7
	TOTAL (MBTU)	117.247	151.895
MAR	PEAK (KBTU)	466.855	2224.134
	DY/HR	15/ 7	7/7
	21,		
	TOTAL (MBTU)	103.943	61.299
APR	PEAK (KBTU)	463.105	1564.500
	DY/HR	11/ 7	11/ 7
	TOTAL (MBTU)	192.239	0.000
MAY	PEAK (KBTU)	982.124	0.000
	DY/HR	6/17	31/ 1
		269.317	0.000
	TOTAL (MBTU)	1091.754	0.000
JUN	PEAK (KBTU)	1091.734	30/ 1
	DY/HR	10/16	30/ 1
	TOTAL (MBTU)	264.504	0.000
JUL	PEAK (KBTU)	1113.855	9.000
	DY/HR	25/14	31/ 1
	TOTAL (MBTU)	291.318	0.000
AUG	PEAK (KBTU)	1100.939	0.000
	DY/HR	18/17	31/ 1
	TOTAL (MBTU)	237.395	0.000
SEP	PEAK (KBTU)	1064.885	0.000
	DY/HR	1/17	30/ 1
	TOTAL (MBTU)	165.079	26.166
~~~	PEAK (KBTU)	954.591	1335.949
oct	DY/HR	13/16	17/7
	D1/HK	13/10	1,, ,
	TOTAL (MBTU)	103.440	128.429
NOV	PEAK (KBTU)	466.855	2089.269
	DY/HR	28/ 9	25/ 7
	TOTAL (MBTU)	114.599	258.684
DEC	PEAK (KBTU)	466.855	2311.969
	DY/HR	27/11	5/7
	ONE YEAR	2077.793	1142.762
	USE/PEAK	1113.855	2816.991
	USE/PEAR	1113.033	*******

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 5/13/1996 8: 6: 3 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

ALCON 13 D 1 MAIL SOURCE OF THE SECOND SECON

MBTU SUPPLIED PCT OF TOTAL LOAD HEATING LOADS ....--710.4 100.0 HW-BOILER \*\*\*\*\*\* ....... LOAD SATISFIED 710.4 100.0 710.4 TOTAL LOAD ON PLANT PCT OF TOTAL LOAD MBTU SUPPLIED COOLING LOADS ----------HERM-REC-CHLR 707.4 100.0 \*\*\*\*\*\*\*\*\*\* \*\*\*\*\*\*\*\*\*\*\*\* LOAD SATISFIED 707.4 100.0 TOTAL LOAD ON PLANT 707.4 ELECTRICAL LOADS MBTU SUPPLIED PCT OF TOTAL LOAD ----------...... ELECTRICITY 2077.8 100.0 \*\*\*\*\*\*\*\*\*\* \*\*\*\*\*\*\*\*\*\*\*\* LOAD SATISFIED 2077.8 100.0

2077.8

TOTAL LOAD ON PLANT

### SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (METU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
HEATING LOADS	710.4	710.4	0.000	0.000	0
COOLING LOADS	707.4	707.4	0.000	0.000	0
ELECTRICAL LOADS	2077.8	2077.8	0.000	0.000	0

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/13/1996 8: 6: 3 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER FILE- BALTIMORE, MD

REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER FILE- BALTIMORE, MD

MAX MON
LOAD DAY SIZE OPER SIZE OPER SIZE OPER SIZE OPER SIZE OPER (MBTU) HRS (MBTU) HRS (MBTU) HRS (MBTU) HRS (MBTU) HRS AVG MAX MON OPER LOAD DA EQUIPMENT RATIO (MBTU) HW-BOILER 0.038 2.010 1 17 7 4.000 4728 HERM-REC-CHLR 0.146 1.059 7 25 7 1.100 4416

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/13/1996 8: 6: 3 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
REPORT- PS-I EQUIPMENT LIFE CYCLE COSTS WEATHER FILE- BALTIMORE, MD

E Q U I	PMENT	T O T	A L S	
		·		
171 BOTT ED		189.8		
HW-BOILER		107.0		4.000
	NOMINAL SIZE (MBTU)			
	NUMBER INSTALLED			2
	FIRST COST (KS)		179.6	179.6
	ANNUAL COST (K\$)		4.6	4.6
	CYCLICAL COST (KS)		5.6	5.6
	TOTAL (K\$)			189.8
HERM-REC-CE	7 D	36.5		
HERM-REC-CE		36.3		1.100
	NOMINAL SIZE (MBTU)			
	NUMBER INSTALLED			1
	FIRST COST (KS)		24.2	24.2
	ANNUAL COST (K\$)		2.3	2.3
	CYCLICAL COST (KS)		10.1	10.1
	TOTAL (KS)			36.5
IUQa	PMENT TOTAL	226.3		

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC
READING. PA 19603 FT. GEORGE G. MEADE UMCS STUDY BUILDING 4411 - NEW CONDITIONS
REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE WEATHER PILE- BALTIMOPR MO

REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE WEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE MBTU -	ELECTRICITY	NATURAL-GAS
CATEGORY OF USE		
SPACE HEAT	58.97	1142.81
SPACE COOL	787.28	0.00
HVAC AUX	373.27	0.00
DOM HOT WTR	0.00	0.00
AUX SOLAR	0.00	0.00
LIGHTS	667.58	0.00
VERT TRANS	0.00	0.00
MISC EQUIP	190.73	0.00
TOTAL	2077.93	1142.81

TOTAL SITE ENERGY TOTAL SOURCE ENERGY

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE • 6.0 PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED • 0.0

NOTE ELECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOR-2.1D 6/13/1996
BUILDING 4411 - NEW CONDITIONS 19603 FT. GEORGE G. MEADE UMCS STUDY . HOURLY-REPORT PAGE 1- 1 -----HW-BOILE HW-BOILE HW-BOILE HERM-REC HERM-REC HERM-REC MMDDHH -CHLR R FUEL -CHLR -CHLR ELECTRIC NOM CAP LOAD LOAD ELECTRIC USB RUNNING USE USE BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR ----(1) ---(3) ---(7) ----(4) ----(3) ----(1) MONTHLY SUMMARY (JAN) 13302. 2009854. ٥. Ο. 0. 1171. 21737. 2816991. 0. ٥. 88000. MX 14316420. 0. 0. 0. 180313280. SM 19243. 385387. ٥. Ο. Ð. 242357. AV MONTHLY SUMMARY (FEB) 13302. 1905933. 1171. 21737. ο. 0. ٥. MN 0. 88000. 2697603. 0. 0. SM 143395008 11681887. 229560016. ٥. 0. 17384. 341607. ΑV 213385. MONTHLY SUMMARY (MAR) 21737. 13302 1171. MN 88000. 2224134. ٥. 0. 0. 1498308. MX 93567888. 8034799. 151894144. 0. ٥. ٥. SM ٥. ٥. 0. ۸V 125763. 10799 204159. MONTHLY SUMMARY (APR) 0. , 13302. 1171. 21737. ٥. ٥. 0. 1564500. ٥. ΜX 957385. 84250. 3301025. 61299256. 0. 37511644. SM 4585. 85138. 0. Ο. 0. MONTHLY SUMMARY (MAY) 20770. 37495. 1100000. ٥. 0. Ο. ٥. 597405. 599127. 1100000. мх Ο. 0. 59784324. 87969448. 818400000. 0. SM ΑV ٥. 0. 90355. 118239. 1100000. MONTHLY SUMMARY (JUN) 0. 0. 20770. 37495. 1100000. ٥. MN 1100000. 991827. 708756. ٥. 0. ٥. 148629648. 161680800. ٥. 0. SM ο. 206430. 224557. 1100000. 0. ΑV MONTHLY SUMMARY (JUL) 0. ٥. 20770. 37495. 1100000. MN 0. 730857. 1100000. 1058615. ٥. ο. 0. 172337968. 164246784 818400000 ٥. SM 0. Ο. 231637. 220762. 1100000.

8: 6: 3 PDL RUN 1

RKAI	ENTECH ENGINE DING. PA	ERING 19603	EZDOE - ELIT	E SOFTWARE DEVE	LOPMENT INC	DOB-2.1D BUILDING 4411 -	6/13/1996 NEW CONDITIONS	8: 6:	3 PDL	RUN
PH-1	- HOUR	LY-REPORT							PAGE	2-
	HW-BOILE	HW-BOILE	HW-BOILE	HERM-REC	HERM-REC	HERM-REC			<b></b>	
	R R	R			-CHLR	-CHLR				
	LOAD		FUEL	LOAD	-CHLR ELECTRIC USR	NOM CAP				
	LUAD		USE	20,2	USE	RUNNING				
	BTU/HR	BTU/HR		BTU/HR	BTU/HR	BTU/HR				
	( 1)	(3)	( 4)	( 1)	(3)	( 7)				
	SUMMARY (AUG) 0.	0.	0	20770.	37495	1100000.				
MN	0.	0.	0.	1038430.	717941	1100000.				
MIX SM	0.	0.	v. n	179088736	179023936	1100000. 818400000.				
	0.	0.				1100000.				
VA	0.	0.	٠.							
MONTHLY	SUMMARY (SEP)				38405					
MN	0.	0.	0.	20770.	37495. 681888.					
MX	0.	0.	0.							
SM	0.	0.				792000000.				
AV	0.	0.	0.	154610.	185793.	1100000.				
MONTHLY	SUMMARY (OCT)									
MIN	0.	0.	0.	20770.	37495.	1100000.				
MIX	817524.	71942.	1335949.	529191.	571593.	1100000.				
SM	16012083.		26165978.	36185580.	60569460.	818400000.				
AV	21522.	1894.	35169.	48637.	81411.	1100000.				
MANTUTY	SUMMARY (NOV)									
MN	13302.	1171.	21737.	0.	0.	0.				
MX			2089269.	0.	0.	0.				
SM	79038000.		128428648		0.	0.				
AV	109775.		178373.		0.	0.				
MONTHY	SUMMARY (DEC)									
MN	13302.		21737.	0.	0.	0.				
MX	1573395.	88000	21737. 2311969.	0.	0.	0.				
	160513520.				0.	0.				
AV	215744.		347691.	0.	0.	0.				
WBARY W	CIRCULARY									
YEARLY MN	SUMMARY 0.	0.	0.	0.	0.	0.				
MX.	2009854.	88000	2816991.	1058615.	730857.	1100000.				
SM	710351424	58964776	1142757760.	707345280	787261056.	4857600000.				
AV	81090.	6731	130452.	80747.	89870.	554521.				
A۷	81090.	0/31.	130732.	55.47.	553.0.					

# FT. MEADE, MARYLAND

Building:

4418

7,953 Square feet

Exte	rior Wall	
Componen	ts	R-Value
Outside Sur	face	0.17
Brick		0.44
Concrete ble	ock	1.72
Air Space		1.10
3 1/2" Insula	ation	11.00
Gyp. Board		0.56
Inside Surfa	ice	0.68
	Total R-Value	15.67
	Total U-Value	0.06

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Shingles	0.44
Wood Deck	0.93
Air Space	1.10
3 1/2" Insulation	11.00
Plaster	0.56
Inside Surface	0.61
Total R-Value	14.81
Total U-Value	0.07

Calculated Total Area	;
No. of Floors	1 :
Avg. Floor to Floor Height	12
No. of Basement Levels	1
Gross Floor Area	7953
Roof Area	6530
Estimated Infiltration (cfm)	750
Gross Wall Area	6050
Door Area	100
Gross Window Area	600
Other	:
Net Wall Area	5350

Window and Door	
	U-Value
Window Single Pane W/Storm	
Window Single Pane Wo/Storm	
Window Double Pane	0.55
Skylight	
Glass Block	
Other	
Door Type 1	0.50
Door Type 2	
Door Type 3	

UoAo = (5350\*0.06) + (6530\*0.07) + (600\*0.55) + (100\*0.50) = 1158.1

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

BUILDING NO. 4418

Page 1 of 1

EQUIPMENT				SYSTEM NUMBER	UMBER			
	1	2	3	4	5	9	7	8
Equipment Name	AHU-1	Boiler						
COOLING:								
Type of Cooling	-							
Air Side	-							
Location in Building								
Area Sq. Feet	6530							
Supply CFM	6500							
Supply Fan HP	S							
O.A. CFM or %	200							
Return CFM								
Return Fan HP								
Chiller Tonnage	15							
Tower or Condenser Fan HP								
Condenser Pump HP								
Chilled Water Pump HP								
HEATING:								
Type of Heating		_						
Source		4						
МВТИН		472/354						
Hot Water Pump HP		3/4						
Condensate Pump HP								
ADDITIONAL:								
Aux. HP Cooling								
Aux. HP Heating								
Operating Schedule Hrs. Week	; ;							
, day	Cooling					10001		
	Simpo in od 7	7				I ype of nearing		
	(4) Water Cooled Chiller	d Chiller		(1) Boiler Hot Water	ter		(4) Furnace	
	(5) Central Plant Supplied	t Supplied		(2) Boiler Steam				
(3) Air Cooled Chiller	(6) Other		)	(3) Steam to Hot Water Converter	Water Converte			
	Air Side				H	Heating Source	ə	
(1) Single Zone	(4) VAV w/ Reheat	eat		(1) Natural Gas			(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	lume Reheat		(2) Central Plant Steam	Steam		(5) Electric	
(3) VAV	(6) Heating and Ventilating	Ventilating		(3) Central Plant Hot Water	Hot Water			
G:VPROJECTSW130.07\SSW418\EQUIPMNT.WK4								

EMCS Annual Energy Savings Summary Report

Base: FTMEADE Building: 4418 Case: 1

Description: LIBRARY

Fuel Type: Fuel oil, distillate #2

Heating Value: 138,700 Btu/gal

## Caution

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Annual Energy Savings Table for Single Zone DX-A/C

Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop	0.000	483	0.0	0
Duty Cycling	0.000	262	0.0	0
Demand Limiting	0.000	0	0.1	0
Day/Night Setback	0.000	294	0.0	0
Run Time Recording	0.000	0	0.0	2
Safety Alarm	0.000	0	0.0	2
Totals	0.000	1,039	0.1	== 4
	MBtu/yr	kWh/yr	kW	mh/yı

Annual Energy Savings Table for Hot Water Radiation

Description: HW RADIATION				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Run Time Recording Safety Alarm	42.204 0.000 0.000	0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	42.204 138,700	0 Btu/gal	0.0	4
Totals	304 gal/yr	0 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Lighting Control

Description: LIGHTING				======
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Lighting Control	0.000	6,760	0.0	0
Totals	0.000 MBtu/yr	6,760 kWh/yr	0.0 kW	0 mh/yr

EMCS Annual Energy Savings for Building 4418

Description	Value	Units
Fuel oil, distillate #2  Electrical Energy  Electrical Demand Reduction  Labor Savings	304 7,799 0.1 8	gal/yr kWh/yr kW mh/yr
\ \_===================================		

# FT. MEADE, MARYLAND

Building:

4419

Square feet 10,290	Square	feet	10,290
--------------------	--------	------	--------

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Brick	0.44
Concrete Block	1.72
Air Space	1.10
Plaster	0.56
Inside Surface	0.68
Total R-Value	4.67
Total U-Value	0.21

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Shingles	0.44
Wood Deck	0.93
Air Space	1.10
8" Loose Insulation	24.00
Plaster	0.56
Inside Surface	0.61
Total R-Value	27.81
Total U-Value	0.04

Cal	culated Total Area	
	No. of Floors	1
Avg.	Floor to Floor Height	12
No.	of Basement Levels	1
	Gross Floor Area	10290
	Roof Area	6300
Estim	ated Infiltration (cfm)	1500
	Gross Wall Area	10315
	Door Area	150
	Gross Window Area	910
	Other	
	Net Wall Area	9255

Window and Door	
	U-Value
Window Single Pane W/Storm	0.60
Window Single Pane Wo/Storm	
Window Double Pane	
Skylight	
Glass Block	
Other	
Door Type 1	0.50
Door Type 2	
Door Type 3	

UoAo = (9255\*0.21) + (6300\*0.04) + (910\*0.6) + (150\*0.5) = 2816

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

Page 1 of 1

**BUILDING NO. 4419** 

EQUIPMENT				SYSTEM	SYSTEM NUMBER			
	-	2	3	4	9	6	7	8
Equipment Name	AHU-1	AHU-2	AHU-3	AHU-4	AHU-5	Boiler	Chiller	
COOLING:		!		:	: : : : : : : : : : : : : : : : : : : :			1
Type of Cooling	3	က	က	က	ဇ			
Air Side	1	-	-	-	-			
Location in Building	Chapel	Chapel	Fellowship	Office	Bsmt Classrms			
Area Sq. Feet	1700	1700	1000	400	2300			
Supply CFM	3500	3500	4000	450	3200			
Supply Fan HP	7 1/2	7 1/2	1 1/2	3/4	-			
O.A. CFM or %	20%	20%	20%	100	%0			
Return CFM								
Return Fan HP								
Chiller Tonnage							75	
Tower or Condenser Fan HP								
Condenser Pump HP								
Chilled Water Pump HP							2	
HEATING:								
Type of Heating					:	2		:
Source								
МВТОН		:		!		768/576		
Hot Water Pump HP	, , , , , , , , , , , , , , , , , , ,	:		;				
Condensate Pump HP						1/3		
ADDITIONAL:								
Aux. HP Cooling				1				
Aux. HP Heating								
Operating Schedule Hrs./Week								
Type	Type of Cooling		: :		Ţ	Type of Heating	<b>5</b> 0	
(1) Air Cooled DX	(4) Water Cooled Chiller	d Chiller		(1) Boiler Hot Water	ater		(4) Furnace	
(2) Water Cooled DX	(5) Central Plant	t Supplied		(2) Boiler Steam	Ε			
(3) Air Cooled Chiller	(6) Other			(3) Steam to H	(3) Steam to Hot Water Converter	er		
7	Air Side				I	Heating Source	e	
(1) Single Zone	(4) VAV w/ Rehe	eat		(1) Natural Gas	S		(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	lume Reheat		(2) Central Plant Steam	nt Steam		(5) Electric	
(3) VAV	(6) Heating and Ventilating	Ventilating		(3) Central Plant Hot Water	nt Hot Water			

G.VPROJECTSW130.07/SSW419/EQUIPMNT.WK4

## EMCS Annual Energy Savings Summary Report

Base: FTMEADE
Building: 4419
Case: 1

Description: CHAPEL

Fuel Type: Natural gas (methane)

Heating Value: 1,031 Btu/cf

## Caution

## 

Description: AHU-1 CHAPEL LE	EFT =====			======
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Demand Limiting Vent/Recirculation Run Time Recording Safety Alarm	115.664 0.000 11.145 0.000 0.000	16,323 0 0 0 0	0.0 1.1 0.0 0.0 0.0	0 0 0 2 2
Subtotals Heating Value /	126.809 1,031	16,323 Btu/cf	1.1	4
Totals	122,996 cf /yr	16,323 kWh/yr	1.1 kW	4 mh/yr

Annual Energy Savings Table for Single Zone AHU

Description: AHU-3 FELLOWSHII	P HALL			
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Demand Limiting Vent/Recirculation Run Time Recording Safety Alarm	109.733 0.000 12.737 0.000 0.000	3,783 0 0 0 0	0.0 0.2 0.0 0.0	0 0 0 2 2
Subtotals Heating Value /	122.470 1,031	3,783 Btu/cf	0.2	4 
Totals	118,787 cf /yr	3,783 kWh/yr	0.2 kW	4 mh/yr

Annual Energy Savings Table for Single Zone AHU

Description: AHU-4 CHAPLIN	OFFICE			
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Demand Limiting Vent/Recirculation Run Time Recording Safety Alarm	19.192 0.000 1.433 0.000 0.000	1,655 0 0 0 0	0.0 0.1 0.0 0.0	0 0 0 2 2
Subtotals Heating Value /	20.625 1,031	1,655 Btu/cf	0.1	4
Totals	20,005 cf /yr	1,655 kWh/yr	0.1 kW	4 mh/yr

Annual Energy Savings Table for Single Zone AHU

Description: AHU-5 BASEMEN	T CLASSROOMS	5		
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Demand Limiting Vent/Recirculation Run Time Recording Safety Alarm	123.510 0.000 10.190 0.000 0.000	2,656 0 0 0 0	0.0 0.1 0.0 0.0	0 0 0 2 2
Subtotals Heating Value /	133.700 1,031	2,656 Btu/cf	0.1	4
Totals	129,680 cf /yr	2,656 kWh/yr	0.1 kW	4 mh/yr

Annual Energy Savings Table for Single Zone AHU

Description: AHU-2 CHAPEL R	IGHT			
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Demand Limiting Vent/Recirculation Run Time Recording Safety Alarm	115.664 0.000 11.145 0.000 0.000	16,323 0 0 0 0	0.0 1.1 0.0 0.0	0 0 0 2 2
Subtotals Heating Value /	126.809 1,031	16,323 Btu/cf	1.1	4
Totals	122,996 cf /yr	16,323 <b>kW</b> h/yr	1.1 kW	.4 mh/yr

Annual Energy Savings Table for Air Cooled Chiller

Description: CHILLER		:======================================		======
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Chiller Water Reset Run Time Recording Safety Alarm	0.000	2,371	0.0	0
	0.000	2,714	0.0	0
	0.000	0	0.0	2
	0.000	0	0.0	2
Totals	0.000	5,085	0.0	4
	MBtu/yr	kWh/yr	kW	mh/yr

EMCS Annual Energy Savings for Building 4419

		.========/
Description	Value	Units
Natural gas (methane) Electrical Energy Electrical Demand Reduction Labor Savings	514,464 45,824 2.7 24	cf /yr kWh/yr kW mh/yr
		/

# FT. MEADE, MARYLAND

Building:

4431

Square feet

5,812

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Brick	0.44
Air Space	1.10
Concrete block	1.11
Inside Surface	0.68
Total R-Value	3.50
Total U-Value	0.29

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Slate Roof	0.05
Air Space	1.10
Plaster	0.56
Inside Surface	0.61
Total R-Value	2.49
Total U-Value	0.40

1
14
5800
5800
700
4760
60
330
4370

Window and Door	
	U-Value
Window Single Pane W/Storm	1.00
Window Single Pane Wo/Storm	
Window Double Pane	
Skylight	
Glass Block	
Other	
Door Type 1	1.00
Door Type 2	
Door Type 3	

UoAo = (4370\*0.4) + (5800\*0.28) + (390\*1.0) = 3,762

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

BUILDING NO. 4431

Page 1 of 1

				SYSTEM NUMBER	UMBER			
	-	2	3	4	5	9	7	8
Equipment Name	Boiler	AHU-1						
COOLING:								!
Type of Cooling		-						
Air Side			. !					
Location in Building		¥						
Area Sq. Feet		5800						
Supply CFM		15000						
Supply Fan HP		7 1/2						
O.A. CFM or %		25%						
Return CFM								
Return Fan HP								
Chiller Tonnage		35						
Tower or Condenser Fan HP								
Condenser Pump HP								
Chilled Water Pump HP								
HEATING:								
Type of Heating	2	!		:	!			1
Source	- !	1						
мвтин	2319/1855		:		1			
Hot Water Pump HP			:	i				
Condensate Pump HP	1/3							
ADDITIONAL:				!				
Aux. HP Cooling								
Aux. HP Heating								
Operating Schedule Hrs. Week								
						TO A STATE OF THE PERSON NAMED IN		
Туре	Type of Cooling					Type of Heating	6	
(1) Air Cooled DX	(4) Water Cooled Chiller	ed Chiller		(1) Boiler Hot Water	ater		(4) Furnace	
(2) Water Cooled DX	(5) Central Plant Supplied	nt Supplied		(2) Boiler Steam	-			
(3) Air Cooled Chiller	(6) Other			(3) Steam to Ho	(3) Steam to Hot Water Converter	er		
7	Air Side				-	Heating Source	ē	
(1) Single Zone	(4) VAV w/ Reheat	neat		(1) Natural Gas			(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	olume Reheat		(2) Central Plant Steam	t Steam		(5) Electric	
(3) VAV	(6) Heating and Ventilating	1 Ventifating		(3) Central Plant Hot water	r Hot water			

G.PROJECTSM130 07/SSW431/EQUIPMNT.WK4

EMCS Annual Energy Savings Summary Report

Base: FTMEADE Building: 4431 Case: 1

Description: THEATER

Description: Indatak

Fuel Type: Natural gas (methane)
Heating Value: 1,031 Btu/cf

## Caution

Annual Energy Savings Table for Single Zone AHU

Description: BLDG AHU-1	========	=======================================		
	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Vent/Recirculation Run Time Recording Safety Alarm	119.998 55.974 0.000 0.000	379 0 0 0	0.0 0.0 0.0 0.0	0 0 2 2
Subtotals Heating Value /	175.972 1,031	. 379 Btu/cf	0.0	4
Totals	170,681 cf /yr	379 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Air Cooled DX Compressor

Description: CONDENSERS				===
Strategy	MBtu/yr	kWh/yr	kW mh/	yr
Scheduled Start/Stop Duty Cycling Demand Limiting Run Time Recording Safety Alarm	0.000 0.000 0.000 0.000 0.000	2,780 1,552 0 0	0.0 0.0 0.7 0.0 0.0	0 0 0 2 2
Totals	0.000 MBtu/yr	4,332 kWh/yr	0.7 kW mh/	4 'yr

Annual Energy Savings Table for Lighting Control

Description: BLDG LIGHTING				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Lighting Control Run Time Recording Safety Alarm	0.000	14,040	0.0	0
	0.000	0	0.0	2
	0.000	0	0.0	2
Totals	0.000	14,040	0.0	4
	MBtu/yr	kWh/yr	kW	mh/yr

EMCS Annual Energy Savings for Building 4431

Description	Value	Units
Natural gas (methane)  Electrical Energy  Electrical Demand Reduction  Labor Savings	170,681 18,750 0.7 12	cf /yr kWh/yr kW mh/yr
\_====================================	=	/

# FT. MEADE, MARYLAND

Building:

4432

18,640 Square feet

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Brick	0.44
Concrete Block	1.72
Gyp Board	0.56
Inside Surface	0.68
Total R-Value	3.57
Total U-Value	0.28

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Built-up Roof	0.33
1 1/2" Insulation	6.00
Metal Deck	0.00
Air Space	1.10
Acoustical Tile Clg	1.89
Inside Surface	0.61
Total R-Value	10.10
Total U-Value	0.10

Calculated Total Area	
No. of Floors	1
Avg. Floor to Floor Height	15
No. of Basement Levels	
Gross Floor Area	18640
Roof Area	18640
- Estimated Infiltration (cfm)	1700
Gross Wall Area	15410
Door Area	210
Gross Window Area	1935
Other	
Net Wall Area	13265

Window and Door	
	U-Value
Window Single Pane W/Storm	0.60
Window Single Pane Wo/Storm	
Window Double Pane	
Skylight	
Glass Block	
Other	
Door Type 1	0.50
Door Type 2	
Door Type 3	

UoAo = (13265\*0.28) + (18640\*0.1) + (210\*0.5) + (1935\*0.6) = 6844.2

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

**BUILDING NO. 4432** 

Page 1 of 1

FOLIBMENT				SYSTEM NUMBER	NUMBER			
	-	2	3	4	5	9	7	8
Equipment Name	AHU-1	AHU-2	AHU-3	AHU-4	Boiler			
COOLING:								
Type of Cooling	-	-	-	-				
Air Side	1	-		-				
Location in Building	CPO	Court Room	Computer Roo	Shop				
Area Sq. Feet	8100	4500	1000	3720				
Supply CFM	0006	2000	1100	4500				
Supply Fan HP	5	5	1/2	က				
O.A. CFM or %	1800	1000	220	006				
Return CFM								
Return Fan HP								
Chiller Tonnage	20	30	က	15				
Tower or Condenser Fan HP								
Condenser Pump HP								
Chilled Water Pump HP								
HEATING:								
Type of Heating					-			
Source					-			
МВТИН					1000			
Hot Water Pump HP					(2) @ 3/4			
Condensate Pump HP								
ADDITIONAL:								
Aux. HP Cooling								
Aux. HP Heating								
Operating Schedule Hrs. Week								
TVDe	Type of Cooling					Type of Heating		
(1) Air Cooled DX	(4) Water Cooled Chiller	od Chiller		(1) Roller Hot Water		7)	(4) Furnace	
(2) Water Cooled DX	(5) Central Plant Supplied	of Supplied		(2) Boiler Steam		•		
(3) Air Cooled Chiller	(6) Other	•		(3) Steam to Ho	(3) Steam to Hot Water Converter	Ji		
	Air Side				Ť	ating Sourc		
(1) Single Zone	(4) VAV w/ Reheat	neat		(1) Natural Gas		7)	(4) Oil	
(2) Multi-Zone	(5) Constant Vo	Volume Reheat		(2) Central Plant Steam	t Steam	<b>*</b>	5) Electric	
(3) VAV	(6) Heating and Ventilating	1 Ventilating		(3) Central Plant Hot Water	It Hot Water			

G:PROJECTSW130.07SSW432/EQUIPMNT.WK4

## EMCS Annual Energy Savings Summary Report

Base: FTMEADE
Building: 4432
Case: 1

Description:

Fuel Type: Natural gas (methane)

Heating Value: 1,031 Btu/cf

## Caution

The ESA program makes no attempt to exclude incompatible strategies.

It is the user's responsibility to select all appropriate strategies.

# Annual Energy Savings Table for Single Zone DX-A/C

Description: AHU-1				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Demand Limiting Vent/Recirculation Run Time Recording Safety Alarm	223.620 0.000 31.108 0.000 0.000	8,440 0 0 0 0	0.0 0.7 0.0 0.0	0 0 0 2 2
Subtotals Heating Value /	254.727 1,031	8,440 Btu/cf	0.7	4
Totals	247,068 cf /yr	8,440 kWh/yr	0.7 kW	4 mh/yr

Annual Energy Savings Table for Single Zone DX-A/C

Description: AHU-2				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Demand Limiting Vent/Recirculation Run Time Recording Safety Alarm	124.233 0.000 17.282 0.000 0.000	7,742 0 0 0 0	0.0 0.7 0.0 0.0	0 0 0 2 2
Subtotals Heating Value /	141.515 1,031	7,742 Btu/cf	0.7	4
Totals	137,260 cf /yr	7,742 kWh/yr	0.7 kW	4 mh/yr

Annual Energy Savings Table for Single Zone DX-A/C

Description: AHU-3				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Demand Limiting Vent/Recirculation Run Time Recording Safety Alarm	41.650 0.000 3.802 0.000 0.000	1,133 0 0 0 0	0.0 0.0746000 0.0 0.0	0 0 0 2 2
Subtotals Heating Value	45.452 / 1,031	1,133 Btu/cf	0.0746000	4
Totals	44,085 cf /yr	1,133 kWh/yr	0.0746000 kW	4 mh/yr

Annual Energy Savings Table for Single Zone DX-A/C

/=====================================				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Demand Limiting Vent/Recirculation Run Time Recording Safety Alarm	107.864 0.000 15.554 0.000 0.000	4,896 0 0 0 0	0.0 0.4 0.0 0.0	0 0 0 2 2
Subtotals Heating Value /	123.418 1,031	4,896 Btu/cf	0.4	4
Totals	119,707 cf /yr	4,896 kWh/yr	0.4 kW	4 mh/yr

Annual Energy Savings Table for Hot Water Radiation

Description: FIN TUBE RADIAT	'ION			
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback	207.492	0	0.0	0
Subtotals Heating Value /	207.492 1,031	0 Btu/cf	0.0	0
Totals	201,253 cf /yr	0 kWh/yr	0.0 kW	0 mh/yr

Annual Energy Savings Table for Hot Water Boiler

Description: B-1				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Hot Water OA Reset Run Time Recording Safety Alarm	80.000 0.000 0.000	0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	80.000 1,031	0 Btu/cf	0.0	4
Totals	77,595 cf /yr	0 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Lighting Control

Description: LIGHTING				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Lighting Control	0.000	63,700	0.0	0
Totals	0.000 MBtu/yr	63,700 kWh/yr	0.0 kW	0 mh/yr

EMCS Annual Energy Savings for Building 4432

/=====================================	Value	Units
Natural gas (methane) Electrical Energy Electrical Demand Reduction Labor Savings	826,968 85,911 2.0 20	cf /yr kWh/yr kW mh/yr

# FT. MEADE, MARYLAND

**Building:** 

4471

Square	feet	7,248
Juuaie	1001	, <b>-</b> . •

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Concrete Block	1.72
Air Space	1.10
Gyp Board	0.56
Inside Surface	0.68
Total R-Value	4.23
Total U-Value	0.24

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Shingles	0.44
Wood Deck	0.93
Air Space	1.10
3" Insulation	11.00
Acoustical Tile	1.89
Inside Surface	0.61
Total R-Value	16.14
Total U-Value	0.06

Calculated Total Area	
No. of Floors	1
Avg. Floor to Floor Height	10
No. of Basement Levels	
Gross Floor Area	7248
Roof Area	7248
Estimated Infiltration (cfm)	1000
Gross Wall Area	3480
Door Area	21
Gross Window Area	389
Other	
Net Wall Area	3070

Window and Door		
	U-Value	
Window Single Pane W/Storm	0.60	
Window Single Pane Wo/Storm		
Window Double Pane		
Skylight		
Glass Block		
Other		
Door Type 1	0.50	
Door Type 2		
Door Type 3		

UoAo = (3070\*0.24) + (7248\*0.06) + (21\*0.5) + (389\*0.6) = 1415.6

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

**BUILDING NO. 4471** 

Page 1 of 1

(4) Oil (5) Electric (4) Furnace Type of Heating Heating Source 9 (3) Steam to Hot Water Converter (3) Central Plant Hot Water SYSTEM NUMBER (2) Central Plant Steam (1) Boiler Hot Water (2) Boiler Steam (1) Natural Gas **Cond Unit** 9 (4) VAV w/ Reheat (5) Constant Volume Reheat (6) Heating and Ventilating **Cond Unit** (5) Central Plant Supplied 9 (4) Water Cooled Chiller Furnace Type of Cooling 490/380 5500 11/2 % 6) Other 4 4 Air Side Aux. HP Heating Operating Schedule Hrs./Week **Tower or Condenser Fan HP** EQUIPMENT Chilled Water Pump HP Condensate Pump HP Condenser Pump HP Hot Water Pump HP (2) Water Cooled DX 3) Air Cooled Chiller ocation in Building Equipment Name 1) Air Cooled DX Aux. HP Cooling Chiller Tonnage Type of Heating ype of Cooling 1) Single Zone Supply Fan HP O.A. CFM or % Return Fan HP ADDITIONAL: (2) Multi-Zone Area Sq. Feet Supply CFM Return CFM COOLING HEATING: (3) VAV MBTUH Source

G.PROJECTSW130.07\SSW471\EQUIPMNT.WK4

12 Jan 1996 16:44:14

# EMCS Annual Energy Savings Summary Report

Building: 4471
Case: 1
Description:

Fuel Type: Fuel oil, distillate #2

### Caution

The ESA program makes no attempt to exclude incompatible strategies.

It is the user's responsibility to select all appropriate strategies.

/\_\_\_\_\_\_

# Annual Energy Savings Table for Direct Fired Furnace

Description: FURNACE				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Run Time Recording Safety Alarm	58.105 0.000 0.000	0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	58.105 138,700	0 Btu/gal	0.0	4
Totals	419 gal/yr	0 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Air Cooled DX Compressor

Description: CONDENSING UNI	TS			
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Duty Cycling Demand Limiting Run Time Recording Safety Alarm	0.000 0.000 0.000 0.000 0.000	3,925 4,655 0 0	0.0 0.0 1.5 0.0	0 0 0 2 2
Totals	0.000 MBtu/yr	8,580 kWh/yr	1.5 kW	4 mh/yr

EMCS Annual Energy Savings for Building 4471

/=====================================	Value	Units
Fuel oil, distillate #2 Electrical Energy Electrical Demand Reduction	419 8,580 1.5	gal/yr kWh/yr kW
Labor Savings		mh/yr

# ATTACHMENT SECTION 8.2D BUILDINGS 4550 TO 4552

Entech Engineering, Inc.

# FT. MEADE, MARYLAND

Building:

4550

Square feet 12	3,40	00
----------------	------	----

Exterior Wall	
Components	R-Value
Outside Surface	0.17
Brick	0.44
Air Space	1.10
Concrete Block	1.72
1" Insulation Rigid	6.00
Plaster	0.56
Inside Surface	0.68
Total R-Value	10.67
Total U-Value	0.09

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Rubber Roof	0.50
2" Insulation Rigid	12.00
Metal Deck	0.00
Air Space	1.10
Acoustic Tile Clg	1.89
Inside Surface	0.61
Total R-Value	16.27
Total U-Value	0.06

Calculated Total Area	
No. of Floors	4
Avg. Floor to Floor Height	12
No. of Basement Levels	1
Gross Floor Area	123400
Roof Area	26650
Estimated Infiltration (cfm)	6000
Gross Wall Area	57600
Door Area	250
Gross Window Area	9510
Other	
Net Wall Area	47840

Window and Door	
	U-Value
Window Single Pane W/Storm	
Window Single Pane Wo/Storm	
Window Double Pane	0.55
Skylight	
Glass Block	
Other	
Door Type 1	0.55
Door Type 2	
Door Type 3	

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

BUILDING NO. 4550

Page 1 of 2

FOLIBMENT				SYSTEM	SYSTEM NUMBER			
	-	2	3	4	5	9	7	80
Equipment Name	AHU-1	AHU-2	AHU-3	AHU-4	AHU-5	9-NHV	AHU-7	AHU-8
COOLING:				4				
Type of Cooling	6	ო	9	ო	က	3	3	က
Air Side	2	2	2	2	2	2	2	2
l ocation in Building	4th Fir	1st Fir East	1st Fir West	2nd Fir East	2nd Fir West	3rd Flr East	3rd Fir West	Bsmt West
Area So. Feet	15250	13500	13500	13500	13500	13500	13500	13000
Supply CFM	9200	13400	13400	13400	13400	14700	14700	5500
Supply Fan HP	10	15	15	15	15	15	15	7 1/2
O.A. CFM or %	20%	20%	20%	20%	20%	20%	20%	20%
Return CFM								
Return Fan HP								
Chiller Tonnage								
Tower or Condenser Fan HP								
Condenser Pump HP								
Chilled Water Pump HP								
HEATING:								
Type of Heating								
Source								
МВТОН								
Hot Water Pump HP								
Condensate Pump HP								
ADDITIONAL:								
Aux. HP Cooling								
Aux. HP Heating								
Operating Schedule Hrs. Week								
			-					
	Type of Cooling					Type of Heating	na	
	מוווסס וס מר					1 pc 20 1 1 2 2 4 1	6	
(1) Air Cooled DX	(4) Water Cooled Chiller	ed Chiller		(1) Boiler Hot Water	Vater		(4) rumace	
(2) water Cooled DX	(5) Central Plant	nt Supplied		(z) Boller Steam	E			
(3) Air Cooled Chiller	(6) Other			(3) Steam to H	(3) Steam to Hot Water Converter	ter		
	Air Side					Heating Source	ce	
(1) Single Zone	(4) VAV w/ Reheat	neat		(1) Natural Gas	ω.		(4) Oil	
(2) Multi-Zone	(5) Constant Volume Reheat	olume Reheat		(2) Central Plant Steam	nt Steam		(5) Electric	
(3) VAV	(b) Heating and Ventilating	o ventilating		(3) Central Fra	III HOI Waler			

G.PROJECTSW130.07\SSW550\EQUIPMNT.WK4

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

BUILDING NO. 4550

Page 2 of 2

Nature   AHU-9   H&V-1   Boiler   Chiller	EQUIPMENT				SYSTEM	SYSTEM NUMBER		
Same   AHU-9   H&V-1   Boiler   Chiller   Chiller   Chiller		-	2	3	4	9	9	7
1	Equipment Name	AHU-9	H&V-1	Boiler	Boiler	Chiller	Chiller	
19   3   10   10   10   10   10   10   10	COOLING:							
Sent East   Sent   Se	Type of Cooling	က	N/A			ရ	ო	
Samt East   Bamt   East   Bamt   East   Bamt   East   Bamt   East   East   Bamt   East   Ea	Air Side	7-	9					
13000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000   1000	Location in Building	Bsmt East	Bsmt					
P	Area Sq. Feet	13000	1000	•				
e enser Fan HP pp HP pp HP mp	Supply CFM	4700	3300					
Contract Plant Repeat	Supply Fan HP	2	1 1/2					
120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120	O.A. CFM or %	20%	100%					
120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120	Return CFM							
1	Return Fan HP							
See Fan HP	Chiller Tonnage					120	120	
HP	Tower or Condenser Fan HP							
Total Plant Supplied	Condenser Pump HP							
Type of Cooling	Chilled Water Pump HP					20	20	
1	HEATING:							
HP   T   T   T   T   T   T   T   T   T	Type of Heating			-	-			
HP	Source			-	-			
HP	MBTUH			2160/1878	2160/1878			
Ph	Hot Water Pump HP			7 1/2				
Type of Cooling	Condensate Pump HP							
Type of Cooling	ADDITIONAL:							
Line Hrs. Week	Aux. HP Cooling		1					
Type of Cooling         Type of Heatin           (4) Water Cooled Chiller         (1) Boiler Hot Water           (5) Central Plant Supplied         (2) Boiler Steam           (6) Other         (3) Steam to Hot Water Converter           Air Side         Heating Source           (4) VAV w/ Reheat         (1) Natural Gas           (5) Constant Volume Reheat         (2) Central Plant Steam           (6) Heating and Ventilating         (3) Central Plant Hot Water	Aux. HP Heating							
Type of Cooling	Operating Schedule Hrs. Week							
Type of Cooling  (4) Water Cooled Chiller  (5) Central Plant Supplied  (6) Other  Air Side  (4) VAV W/ Reheat  (5) Constant Volume Reheat  (6) Heating and Ventilating								
(4) Water Cooled Chiller (5) Central Plant Supplied (6) Other  Air Side (4) VAV w/ Reheat (5) Constant Volume Reheat (6) Heating and Ventilating	Type	of Cooling	_				Type of Heati	bu
(5) Central Plant Supplied (2) Boiler Steam (6) Other  Air Side  (4) VAV w/ Reheat (5) Constant Volume Reheat (6) Heating and Ventilating		(4) Water Coole	ed Chiller		(1) Boiler Hot M			(4) Furnace
Chiller (6) Other  Air Side  (4) VAV w/ Reheat (5) Constant Volume Reheat (6) Heating and Ventilating	(2) Water Cooled DX	(5) Central Plan	t Supplied		(2) Boiler Stean	-		
Air SideHeating Sourcee(4) VAV w/ Reheat(1) Natural Gas(5) Constant Volume Reheat(2) Central Plant Steam(6) Heating and Ventilating(3) Central Plant Hot Water	(3) Air Cooled Chiller	(6) Other			(3) Steam to Ho	ot Water Conver	ter	
e (4) VAV w/ Reheat (1) Natural Gas (2) Constant Volume Reheat (2) Central Plant Steam (6) Heating and Ventilating	A	ir Side					Heating Sour	93
(5) Constant Volume Reheat (2) Central Plant Steam (6) Heating and Ventilating		(4) VAV w/ Reh	eat		(1) Natural Gas			(4) Oil
(6) Heating and Ventilating	(2) Multi-Zone	(5) Constant Vo	olume Reheat		(2) Central Plan	ıt Steam		(5) Electric
$\epsilon$	(3) VAV	(6) Heating and	Ventilating		(3) Central Plan	t Hot Water		

G.PROJECTSW130.07/SSW550/EQUPMNT2.WK4

EMCS Annual Energy Savings Summary Report

\_\_\_\_\_

Base: FTMEADE Building: 4550 Case: 1

Description: ADMIN-FIRST ARMY HDQTRS EAST

Fuel Type: Natural gas (methane)
Heating Value: 1,031 Btu/cf

Caution

Description: AHU-BW \_\_\_\_\_\_ MBtu/yr kWh/yr kW mh/yr Strategy 0 Demand Limiting 0.000 Run Time Recording 0.000 0.0 0 0.0 0.000 Safety Alarm 0 0.000 3.7 Totals MBtu/yr kWh/yr kW mh/yr 

Annual Energy Savings Table for Multi-zone AHU

Description: AHU-1E, 1W, 2E, 2W, 3E, 3W MBtu/yr kWh/yr kW mh/yr Strategy \_\_\_\_\_\_\_ 13.4 Demand Limiting 0.000 0.0 Run Time Recording 0.000 0 Safety Alarm 0.000 0 0 13.4 4 kWh/yr kW mh/yr 0.000 MBtu/yr  Annual Energy Savings Table for Multi-zone AHU

Description: AHU-4				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Demand Limiting Run Time Recording Safety Alarm	0.000	0	1.5	0
	0.000	0	0.0	2
	0.000	0	0.0	2
Totals	0.000	0	1.5	4
	MBtu/yr	kWh/yr	kW	mh/yr

Annual Energy Savings Table for Multi-zone AHU

Description: AHU-BE				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Demand Limiting Run Time Recording Safety Alarm	0.000	0	1.1	0
	0.000	0	0.0	2
	0.000	0	0.0	2
Totals	0.000	0	1.1	4
	MBtu/yr	kWh/yr	kW	mh/yr

Annual Energy Savings Table for Heating/Ventilating Unit

======================================	========		=======	======
======================================	MBtu/yr	======================================	 kW	====== mh/yr
Scheduled Start/Stop Run Time Recording Safety Alarm	399.044 0.000 0.000	2,487 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	399.044	2,487 Btu/cf	0.0	4
Totals	387,045 cf /yr	2,487 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Hot Water Boiler

Description: BOILER				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Hot Water OA Reset Run Time Recording Safety Alarm	152.471 0.000 0.000	0 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	152.471 1,031	0 Btu/cf	0.0	4
Totals	147,886 cf /yr	0 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Air Cooled Chiller

Description: C-1				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Chiller Selection Chiller Water Reset Run Time Recording Safety Alarm	0.000 0.000 0.000 0.000 0.000	51,510 1,670 20,045 0	0.0 0.0 0.0 0.0	0 0 0 2 2
Totals	0.000 MBtu/yr	73,225 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Lighting Control

======================================	=======================================	=======================================		
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Lighting Control Run Time Recording Safety Alarm	0.000	130,000	0.0	0
	0.000	0	0.0	2
	0.000	0	0.0	2
Totals	0.000	130,000	0.0	4
	MBtu/yr	kWh/yr	kW	mh/yr

4 Jun 1996 15:18:04

# EMCS Annual Energy Savings for Building 4550

/=====================================	Value	Units
Natural gas (methane)  Electrical Energy  Electrical Demand Reduction  Labor Savings	534,931 205,712 19.8 32	cf /yr kWh/yr kW mh/yr
\ <sup>'</sup> ====================================		

# UMCS FEASIBILITY STUDY FORT MEADE BUILDING 4550 - ADMINISTRATIVE DOE ENERGY SAVINGS SUMMARY

	Space	Space Heat	Space Cool	HVAC Aux	Lights	Misc Equip	TOTAL	TAL	TOTAL	TAL
	Electricity	al Gas	Electricity	Electricity	Electricity	Electricity	Electricity	Electricity Natural Gas Electricity Natural Gas	Electricity	Natural Gas
	mmBtu	mmBtu	mmBtu	mmBtu	mmBtu	mmBtu	mmBtu	mmBtu		MCF
Existing	371.4		943.7	1,968.4	1,913.4	853.4	6,050.2	11,620.2	1,772,704	11,270.8
New w/Night Setback	183.4	4,965.3	825.3	1,388.7	1,913.4	853.4	5,164.2	4,965.3	1,513,088	4,816.0
Night Setback Savings							886.1	6,654.9	259,616	6,454.8
New w/Night Setback	174.8	4,863.8	872.2	1,340.0	1,913.4	853.4	5,153.8	4,863.8	1,510,041	4,717.6
Vent/Recirc Savings							10.4	101.5	3,047	98.5
New w/Night Setback &	172.2	4,815.7	882.2	1,314.3	1,913.4	853.4	5,135.6	4,815.7	1,504,706	4,670.9
Temp Reset Savings							18.2	48.1	5,335	46.7

G:PROJECTSW130.07/SSWDOESUM:WK4

EXISTING

FILE: +550E

READ I-1	DING, PA HOUR	19603 LY-REPORT	FT. GEORGE	G. MEADE		EMCS STUDY	.1D 12/ 8/1995	14:25:14 SI	OL RUN
MODHH		AHU-1	AHU-1	AHU-2	AHU-2	AHU-2	AHU-3	AHU-3	
	TOT HTG COIL PWR BTU/HR	SUPPLY BLECTRIC KW	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY BLECTRIC KW	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY ELECTRIC KW	
	( 5)	(49)	(78)	(5)	(49)	(78)	(5)	(49)	
MONTHLY	SUMMARY (JAN)								
MN	-440332.	8.744	-468586.	-290896.	5.827	-312286.	-298077. -86697.	5.998	
MX.	-188048.	8.744	-468586.	-89584.	5.827	-312286.	-86697.	5.998	
	-255710352.	6505.630	-348628128.	-153531424.	4335.633	-232340784.	-156702752.	4462.252	
AV		8.744		-206359.		-312286.			
MONTHLY	SUMMARY (FEB)								
MN	-440347.	8.744	-468586.		5.827	-312286.	-302007.	5.998	
MX	-32579.	8.744	-468586.			-312286.			
SM	-225897392.	5876.053	-314889888.	-135785728.	3916.056	-209856192.	-138520176.	4030.421	
AV	-336157.	8.744	-468586.	-202062.	5.827	-312286.	-206131.	5.998	
MONTHLY	SUMMARY (MAR)								
MIN	-436190.	8.744	-468586.				-280850.		
MX	<del>-</del> 7.	8.744	-468586.	-7.		-312286.			
SM	-212374368.		-348628128.	-122874232.	4335.633	-232340784.	-125375040.	4462.252	
AV		8.744	-468586.	-165154.	5.827	-312286.	-168515.	5.998	
	SUMMARY (APR)								
MN	-398402.	8.744	-468586.	-247121.	5.827	-312286.	-252276. -1.	5.998	
MX	-2.		-468586.	-1.	5.827	-312286.	-1.	5.998	
SM	-157983616.		-337382048.	-88213032.			-90282080.		
VA	-219422.	8.744	-468586.	-122518.	5.827	-312286.	-125392.	5.998	
	SUMMARY (MAY)						•	5 000	
MN	0.		0.					5 000	
MX	0.	8.744	0.	0.					
SM AV	0. 0.	6505.630 8.744	0. 0.	0. 0.		0. 0.		5.998	
	SUMMARY (JUN)			_		_	_	5 005	
MN	0.		0.			0.	0.		
MX	0.	8.744	0.	0.		0.	0.		
SM	0.		0.	0.		0.	0.		
AV	0.	8.744	0.	0.	5.827	0.	0.	5.998	
	SUMMARY (JUL)		_	_	<b>.</b>	•	•	F 005	
MN	0.			0.	5.827	0.		5.998	
MX	٥.		0.						
SM	٥.		0.		4335.633	٥.	0.		
AV	0.	8.744	0.	0.	5.827	0.	0.	5.998	

ENTECH ENGINEERING EZDOR - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/8/1995 14:25:14 SDL RUN 1

-1	READING,	PA	19603 LY-REPORT	FT. GEORGE	G. MEADE		EMCS STUDY		PAGE	3 2-
	AHU-1		AHU-1	AHU-1	AHU-2	AHU-2	AHU-2	AHU-3	AHU-3	
	TOT HT COIL P BTU/HR	G WR	SUPPLY BLECTRIC KW	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY ELECTRIC KW	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY BLECTRIC KW	
	(	5)	(49)	(78)	(5)	(49)	(78)	( 5)	(49)	
MONT	THLY SUMMARY	(AUG)								
М	ญ	٥.	8.744	0. 0.	0.	5.827	0.	0.	5.998 5.998	
м	ťΧ	0.	8.744	0.	0.	5.827	0.	٥.	5.998	
S	SM	0.	8.744 6505.630	0.	0.	4335.633	0.	0. 0. 0.	4462.252	
A	VA.	0.	8.744	0.	0.	5.827	0.	0.	5.998	
MONT	THLY SUMMARY							٥	F 000	
M	an An	٥.	8.744	0.	0.	5.827	0.	0.	5.990	
M	4X	0.	8.744	0. 0. 0.	0.	5.827	0.	0.	5.998	
5	SM	٥.	6295.771	0.	0.	4195.774	0.	0. 0.	4318.309	
2	AV	0.	8.744	0.	0.	5.827	0.	0.	5.998	
MONT	THLY SUMMARY	(OCT)			202462	E 027	212206	-204172	5 009	
1	MN -443	960.	8.744	-468586. 0.	-293460.	5.027	-312280.	-304172.	5.998 5.998	
ı	MIX	0.	8.744	0. -179937040.	51.503130	4275 627	.110017074	-57746460	4462 252	
٤	SM -87302	840.	6505.630	-179937040.	-69359.	4335.033	-161180.	-70896.	5.998	
,	AV -117	343.	8.744	-241851.	-69359.	3.027	1181180.	-70830.	3.330	
MON	THLY SUMMARY	(NOV)					212206	260222	E 000	
ľ	MDN -396	478.	8.744	-468586.	-262356.	5.827	-312286.	-260322.	5.556	
1	MX	0.	8.744	-468586.	0.	5.82/	-312286.	116053664	4319 300	
5	SM -191351	1312.	6295.771	-468586. -468586. -337382048. -468586.	-113463168.	4195.774	-224845920.	161104	4310.309	
1	AV -265	5766.	8.744	-468586.	-157588.	5.827	-312286.	-161164.	3.330	
MON	THLY SUMMARY	(DEC)				5 027	212206	277705	5.998	
1	MN -426	5039.	8.744	-468586. -468586.	-271123.	5.827	-312286.	-2//205.	5.998	
	MIX -55	5341.	8.744	-468586.	-13493.	5.827	-312286.	-143/6.	2.226	
:	SM -248829	9152.	6505.630	-348628128. -468586.	-150078480.	4335.633	-232340784.	-153529000.	4404.434	
i	AV -334	1448.	8.744	-468586.	-201718.	5.827	-312286.	-20633/.	3.336	
YEA	RLY SUMMARY				202462	5 027	-312286	-304172	5 998	
- 1	MN -443	3960.	8.744	-468586. 0.	-293460.	5.827	-312286.	-3041/2.	5 998	
1	MX	0.	8.744	0. -2215475456.	0.	5.827	1476488187	.033300768	52519 426	
	SM -1379445	9088.	76598.547	-2215475456.	-815549184.	51048.578	-14/5488194.	-033200/00.	5.998	
	AV -15	7471.	8.744	-252908.	-93099.	5.827	-168549.	-32772.	3.336	

ENTECH ENGINEERING BZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/8/1995 14:25:14 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADB EMCS STUDY

			EMCS STUDY		G MRADR	FT. GEORGE	19603	RNIRCH ENGINE	
B 1-							LY-REPORT	ING, PA = HOUR!	READ H-1
	AHU-6	AHU-5	AHU-5	AHU-5	AHU-4	AHU-4	AHU-4	AHU-3	MMDDHH
	TOT HTG	HEATING	SUPPLY	TOT HTG	HEATING	SUPPLY	TOT HTG	HEATING	
	COIL PWR	CAPACITY	ELECTRIC	COIL PWR	CAPACITY	BLECTRIC	COIL PWR		
	BTU/HR	BTU/HR	KM	BTU/HR	BTU/HR	KM	BTU/HR	CAPACITY	
	·	•		2.0,	B10/IEC	A.M	BTU/HK	BTU/HR	
	(5)	(78)	(49)	(5)	(78)	(49)	( 5)	(78)	
								SUMMARY (JAN)	MONTHLY
	-337314.	-321406.	5.998	-298077. -86697.	-312286.	5.827	-290896.	-321406.	MN
	-126689.	-321406.							
		-239126080.		-156702752.	-232340784.	4335.633	-153531424.	-239126080.	SM
	-254685.	-321406.	5.998	-210622.	-312286.	5.827	-206359.		AV
								SUMMARY (FEB)	VALUE 11
	-339245.	-321406.	5.998	~302007.	-312286.	5 827	20242R	-321406.	
	-11324.	-321406.	5.998	-1797	-212286	5 927	-143.		MN
	-166798832.	-215984848.	4030.421	-138520176.	-209856192			-321406. -215984848.	MX
	-248213.	-321406.	5.998	-206131.	-312286				
					-312200.	3.027	-202062.	-321406.	AV
	-227421	-321406.	5 000	200050				SUMMARY (MAR)	MONTHLY
	-7,	-321406.	5.336	-280850. -6.	-312286.	5.827	-274155.	-321406.	MN
	-157067037	-239126080.	3.990	-6.	-312286.	5.827	-7.	-321406.	
			4462.252	-125375040.	-232340784.	4335.633		-239126080.	SM
	-203461.	-321406.	5.998	-168515.	-312286.	5.827	-165154.	-321406.	AV
								SUMMARY (APR)	MONTHLY
	-297662.	-321406.	5.998	-252276. -1.	-312286.	5.827		-321406.	MN
	-1.	-321406.	5.998	-1.	-312286.	5.827	1.	-321406.	MX
				-90282080.		4195.774	-88213032.	-231412336.	SM
	-153770.	-321406.	5.998	-125392.	-312286.	5.827	-122518.	-321406.	ΑV
								SUMMARY (MAY)	MONTHI.Y
		0.	5.998	0.	0.	5.827		0.	MN
		0.	5.998	0.	0.	5.827	0.	0.	MX
	0.	0.	4462.252	0.	0.		0.	0.	SM
	٥.	0.	5.998	0.	0.	5.827	0.	0.	AV
							-	SUMMARY (JUN)	MONTHLY
	0.	0.	5.998	0.	0.	5.827	n	O.	MONTHLI
	0.	0.	5.998 5.998	0.			0.	0.	MX
	0.	0.	4318.309	0.	0.		0.	0.	MA. SM
	0.	0.	5.998	0.	0.	5.827	0.	0.	AV
								SUMMARY (JUL)	HONTE
	0.	0.	5.998	0.	٥.	5.827	0.	O.	
	0.		5.998					0.	MIN MIX
	0.	0.	4462.252		0.	4335.633	0.	0.	
	٥.	0.		0.	0.	5.827	0.	0.	SM
					• • • • • • • • • • • • • • • • • • • •	3.327	٠.	U.	AV

DOE-2.1D 12/ 8/1995 14:25:14 SDL RUN 1 EZDOR - ELITE SOFTWARE DEVELOPMENT INC ENTECH ENGINEERING FT. GEORGE G. MEADE EMCS STUDY PA 19603 READING, - HOURLY-REPORT H-1 AHU-5 AHU-5 AHU-5 AHU-6 AHU-4 AHII-4 AHU-3 AHU-4 SUPPLY HEATING TOT HTG SUPPLY HEATING TOT HTG TOT HTG HEATING COIL PWR BLECTRIC CAPACITY COIL PWR CAPACITY COIL PWR BLECTRIC CAPACITY BTU/HR BTU/HR KW BTU/HR BTU/HR BTU/HR BTU/HR KW ---- (78) ----(5) ----(5) ---- (49) ---- (78) ---(5) ---- (49) --- (78) MONTHLY SUMMARY (AUG) 0. 5.827 Ο. 5.998 ٥. ٥. Ο. 0. ٥. ٥. 5.827 ٥. Ο. 5.998 ΜX ٥. ٥. Ο. 4462.252 4335.633 ٥. ٥. SM ٥. ٥. 5.998 ٥. 5.827 Ο. ΑV MONTHLY SUMMARY (SEP) 5.998 0. ٥. ٥. 0. 0. 5.827 ٥. MIN 0. 5.998 0. ٥. ٥. 5.827 ٥. ٥. 0. 4318.309 ٥. 0. 4195.774 ٥. SM ٥. ٥. ٥. 5.827 0. 0. 5.998 ΑV ٥. MONTHLY SUMMARY (OCT) 5.827 -312286. -304172. 5.998 -321406. -340150. -293460. MN -321406. ٥. 5.827 Ο. 0. 5.998 0. ٥. MX -119917824. -52746460. -123419912. -63547928. -51603120. 4462.252 -123419912. 4335.633 SM -85414. 5.998 -165887. -161180. 5.827 A٧ -165887. -69359. MONTHLY SUMMARY (NOV) 5.998 -321406. -307015. -312286. -268322. 5.827 -321406. -321406. -262356. 5.827 -312286. ٥. 5.998 -321406. ο. 0. MX -116052664. -231412336. -140530272. -113463168. 4318.309 4195.774 -224845920 -231412336. SM -161184. 5.998 -195181. 5.827 -312286. -321406. -157588. MONTHLY SUMMARY (DEC) 5.998 -321997. -277285. -321406. -321406. -312286. -271123. 5.827 -312286. -14376. 5.998 -321406. -32172. 5.827 MX -13493. -184894384. -153529600. 4462.252 -239126080. -239126080. 4335.633 -232340784. SM -206357. 5.998 ΑV -321406. -201718. 5.827 -312286. YEARLY SUMMARY 5.998 -321406. -321406. -312286. -304172. -293460. 5 827 MIN 0. 5.998 0. 5.827 0. -1519607552. 0. -815549184. 52539.426 -1519607552. -1008834368. -1476488192. -833208768. 51048.578

-173471.

5.998

-115164.

SM

ΑV

-173471.

-93099.

5.827

-168549.

-95115.

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/8/1995 14:25:14 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY

	ENTECH :	engine Pa	BRING 19603	EZDOE - EL		EARTONEMI INC	EMCS STUDY	10 12/ 6/1995	14:25:14 5	
H-1			LY-REPORT						PAG	B 1- 3
MMDDHH	AHU-6		AHU-6	AHU-7	AHU-7	AHU-7	AHU-8	AHU-8	AHU-8	
MINDUIN	Anu-		ALC-0	,2.0						
	SUPPLY		HEATING	TOT HTG	SUPPLY	HEATING	TOT HTG	SUPPLY	HEATING	
	BLECTRI	С	CAPACITY	COIL PWR	ELECTRIC	CAPACITY	COIL PWR	ELECTRIC	CAPACITY	
	KW		BTU/HR	BTU/HR	KW	BTU/HR	BTU/HR	KW	BTU/HR	
	(49	)	(78)	(5)	(49)	<del></del> (78)	(5)	(49)	(78)	
MONTHLY	SUMMARY	(JAN)								
MIN	6.	737	-361032.	-342994.		-369208.	-187554.	2.758	-179073.	
MX	6.	737	-361032.	-123293.	6.890					
SM	5012.	394	-268607360.	-192241104.	5125.914		-121120848.		-133230512.	
AV					6.890	-369208.	-162797.	2.758	-179073.	
MONTHLY	SUMMARY	(FEB)								
MN	6.	737	-361032.	-346928. -11963.	6.890	-369208.	-197097.		-179073.	
MX	6.	737	-361032.	-11963.	6.890	-369208.	-92445.	2.758	-179073.	
SM	4527.	324	-242613088.	-169147776.	4629.858		-92445. -112495736.		-120337232.	
AV	6.	737	-361031.	-251708.	6.890	-369208.	-167404.	2.758	-179073.	
MONTHLY	SUMMARY	(MAR)								
MN.	6.	737	-361032.	-333564. -7.	6.890	-369208.	-195943.	2.758	-179073.	
MX	6.	.737	-361032.	-7.	6.890	-369208.	-36494.	2.758	-179073.	
SM	5012	394	-268607360.	-154975952.	5125.914	-274690784.	-119968120.	2052.112	-133230512.	
AV		.737		-208301.	6.890	-369208.	-161247.	2.758	-179073.	
MONTHLY	SUMMARY	(APR)								
MN	6	.737	-361032.	-302246.	6.890	-369208.	-186668.	2.758	-179073.	
MIX			961022	0	6 890	-369208.	-14512.	2.758	-179073.	
SM	4850	.704	-259942592.	-112492848.	4960.562	-265829792.	-102786792.	1985.915	-128932752.	
AV	6	.737	-361031.	-156240.	6.890	-369208.	-142759.	2.758	-179073.	
MONTHLY	SUMMARY	(MAY)							_	
MN	6	.737	0.						0.	
MX	6	.737	0.	0.			0.	2.758 2052.112	0.	
SM	5012	.394	٥.	0.					0.	
VA	6	.737	٥.	0.	6.890	0.	0.	2.758	0.	
MONTHLY	SUMMARY	(JUN)								
MN	6	.737	0.	0.	6.890 6.890	0.			0.	
MX	6	.737	0.	0.			0.	2.758	0.	
SM	4850	.704	0.		4960.562	0.	0.		0.	
AV	6	.737	0.	0.	6.890	0.	0.	2.758	0.	
MONTHLY	SUMMARY	(JUL)					_		•	
MIN	6	.737	0.	0.	6.890		0.		0.	
MX	6	.737	0.						0.	
SM	5012	.394	0.		5125.914	0.			0.	
AV	6	.737	0.	0.	6.890	٥.	0.	2.758	0.	
AV	6	. /3/	0.	0.	2.350	-				

EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/ 8/1995 14:25:14 SDL RUN 1 ENTECH ENGINEERING 19603 FT. GEORGE G. MEADE EMCS STUDY READING, PA 19603 \* HOURLY-REPORT PAGE 2- 3 H-1 AHU-8 AHU-8 8-UHA AHU-7 AHU-7 AHU-7 AHU-6 AHU-6 HEATING TOT HTG SUPPLY TOT HTG SUPPLY HRATING SUPPLY HEATING ELECTRIC CAPACITY COIL PWR BLECTRIC CAPACITY BLECTRIC CAPACITY COIL PWR BTU/HR KW BTU/HR KW BTU/HR ĸw BTU/HR BTU/HR ---(5) ----(49) --- (78) ---- (78) ---(5) ----(49) ---- (49) MONTHLY SUMMARY (AUG) 2.758 6.890 ٥. 0. 0. ٥. 6.737 6.737 MN 2.758 0. 0. 6.890 ο. 0. MX 5125.914 ٥. Ο. 2052.112 0. ο. SM ٥. 2.758 6.890 ٥. A۷ 6.737 0. MONTHLY SUMMARY (SEP) 2.758 6.737 6.890 ٥. 0. ٥. MN 0. 2.758 ٥. 6.890 0. ΜX 6.737 ٥. ٥. ٥. 4960.562 0. Ο. 1985.915 0. 4850.704 SM 2.758 ο. ٥. 6.890 ٥. ٥. 6.737 ΑV MONTHLY SUMMARY (OCT) -178229. 6.737 -349804. 2.758 -361032. 6.890 -369208. -179073 MN 2.758 0. -138636064. 0. -64516248. 0. -141775904. ٥. 6.737 6.890 0. MX -30923434. 5125.914 2052.112 -68764112. 5012.394 -86715. 6.890 -190559. -41564. 2.758 -92425. -186339. ΔV 6.737 MONTHLY SUMMARY (NOV) -312418. 6.737 6.890 -369208. -168087. 2.758 -179073. -361032. MN -15. -76514864. 6.737 -361032. 0. 6.890 -369208. 2.758 -179073. MX 1985.915 -265829792. -128932752. -142760624. -259942592. 4960.562 -369208. -106271. 2.758 -179073. -198279. 6.890 ΑV 6.737 -361031. MONTHLY SUMMARY (DEC) 6.737 -170093. -327592. 6.890 -369208. 2.758 -179073. -361032. -32824. 6.890 -369208. -44668. 2.758 -179073. -361032. мx 2052.112 -133230512. -268607360. -187924160. 5125.914 -274690784. -109070104. 5012.394 SM -369208. -146600. -361031. -252586. 6.890 YEARLY SUMMARY 6.737 -369208. -197097. 6.890 -361032. -349804.

6.890 0. 60353.508 -1745615616.

6.890

-199271.

ο.

-116902.

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SM

ΑV

6.737

0.

59016.898 -1706956416. -1024058688.

-194858.

0. -672879872.

-76813.

2.758

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-96651.

-846658368.

	ENTECH ENGIN		EZDOR - ELITE					12/	8/1995	14:25:1	4 SD	L RUN
		19603	FT. GEORGE G.	MEADE		EMCS S	YCUTE				DACE	1-
H-1		RLY-REPORT			 							
MMDDHH	AHU-9		AHU-9									
	TOT HTG	SUPPLY	HEATING									
	COIL PWR	ELECTRIC	CAPACITY									
	BTU/HR		BTU/HR									
	( 5)	(49)	(78)									
MONTHLY	Y SUMMARY (JAN)											
MN			-210316.									
MIX		3.239										
SM	-136985504.	2410.141	-156474944.									
VA			-210316.									
MONTHL	Y SUMMARY (FEB)											
MN	-227505.	3.239	-210316. -210316.									
MDC	-89892.	3.239	-210316.									
SM	-128790616.	2176.901	-141332192.									
VA	-191653.	3.239	-210316.									
MONTHL	Y SUMMARY (MAR	1										
MN	-221317.	3.239	-210316.									
MIX	-30554.	3.239	-210316.									
SM	-135708736.	2410.141	-156474944.									
VA	-182404.	3.239	-210316.									
MONTHL	Y SUMMARY (APR	ı										
MIN	-215390.	3.239	-210316.									
MIX	-11506.	3.239	-210316.									
SM	-11506. -113795200.	2332.394	-151427360.									
	-158049.	3.239	-210316.									
	Y SUMMARY (MAY	)										
MN	0.	3.239 3.239	0.									
MDC	0.	3.239	0.									
SM	0.	2410.141	0.									
AV	0.	3.239	0.									
MONTHL	Y SUMMARY (JUN	,										
MON			0.									
MX		3.239										
SM		2332.394	0.									
AV	0.	3.239	0.									
	Y SUMMARY (JUL	)										
MIN			0.									
MX	0.	3.239	0.									
SM		2410.141	0.									
VΑ	0.	3.239	. 0.									

ENTECH ENGINEERING RADDE PLITE SOFTWARE DEVELOPMENT INC DOR-2.1D 12/8/1995 14:25:14 SDL RE READING, PA 19503 FT. GEORGE G. MEADE BMCS STUDY PAGE 2.  ART-9 A																
ANU-9 ANU-9 ANU-9 ANU-9  ANU-9 ANU-9 ANU-9  TOT HTG SUPPLY HEATING COIL PWR ELECTRIC CAPACITY BTU/HR KN BTU/HR (5)(49)(78)  HONTHLY SUMMARY (AUG)  MN 0. 3.239 0.  MX 0. 3.239 0.  MX 0. 3.239 0.  HONTHLY SUMMARY (SEP)  MN 0. 2410.141 0.  AV 0. 3.239 0.  HONTHLY SUMMARY (SEP)  MN 0. 3.239 0.  HONTHLY SUMMARY (SEP)  MN 0. 3.239 0.  MX 0. 3.239 0.  HONTHLY SUMMARY (OCT)  MN 0. 3.239 0.  HONTHLY SUMMARY (OCT)  MN 0. 2332.394 0.  HONTHLY SUMMARY (OCT)  MN -209076. 3.239 0.  HONTHLY SUMMARY (OCT)  MN -209076. 3.239 -210316.  MX 0. 3.239 -108550.  HONTHLY SUMMARY (NOV)  MN -184892. 3.239 -210316.  MX -15. 3.239 -210316.  MX -163229. 3.239 -210316.	001	ENTECH ENGINE	BRING	EZDOE - ELITI	S SOFTWARE	DEVELOPMENT	INC	BMCS	DOE-2.1D STUDY	12/	8/1995	14:25:	14 SI	LR	.U	N
AHU-9 AHU-9 AHU-9  TOT HTG SUPPLY ELECTRIC CAPACITY ETU/HR ETU/HR ETU/HR KW ETU/HR ETU	1-1	= HOUI	RLY-REPORT	rr. Gadical C									PAGI	2	: <b>-</b>	
COLL PWR KM BTU/HR  THE BTU/HR				AHU-9												
BTU/HR KM BTU/HR(5)(49)(78)  MONTHLY SUMMARY (AUG) MN 0. 3.239 0. MX 0. 3.239 0. MN 0. 2410.141 0. AV 0. 3.239 0. MONTHLY SUMMARY (SEP) MN 0. 3.239 0. MONTHLY SUMMARY (SEP) MN 0. 3.239 0. MX 0. 3.239 0. MONTHLY SUMMARY (OCT) MN -209076. 3.239 0. MONTHLY SUMMARY (OCT) MN -209076. 3.239 -210316. MX 0. 3.239 -210316. MX 0. 3.239 -210316. MX 0. 3.239 -210316. MX 10 3.239 -210316. MX -154892. 3.239 -210316. MX -154892. 3.239 -210316. MX -154932. 2332.394 -15427360. AV -120087. 3.239 -210316. MX -151 -329 -210316. MX -152 -329 -210316. MX -227505. 3.239 -210316.		TOT HTG														
(5)(49)(78)  MONTHLY SUMMARY (AUG)  MN 0. 3.239 0.  MX 0. 3.239 0.  MONTHLY SUMMARY (SEP)  MN 0. 3.239 0.  MONTHLY SUMMARY (SEP)  MN 0. 3.239 0.  MX 0. 3.239 0.  MN 0. 3121.394 0.  AV 0. 3.239 0.  MONTHLY SUMMARY (OCT)  MN -209076. 3.239 -210316.  MX 0. 3.239 -108550.  MONTHLY SUMMARY (NOT)  MN 198365. 3.239 -108550.  MONTHLY SUMMARY (NOT)  MN 1-15. 3.239 -210316.  MX -86462528. 2332.394 -151427360.  AV -120087. 3.239 -210316.  MX -12142312. 2410.141 -156474944.  AV -163229. 3.239 -210316.  MX -12142312. 2410.141 -156474944.  AV -163229. 3.239 -210316.  MX -12142312. 2410.141 -156474944.  AV -163229. 3.239 -210316.  MX -227505. 3.239 -210316.  MX -27505. 3.239 -210316.  MX -227505. 3.239 -210316.  MX -591468512. 28377.465 -994377056.																
MONTHLY SUMMARY (AUG)  MN		BTU/HR	KW	BTU/HR												
MN 0. 3.239 0.  MX 0. 3.239 0.  SM 0. 2410.141 0.  AV 0. 3.239 0.  MONTHLY SUMMARY (SEP)  MN 0. 3.239 0.  MX 0. 3.239 0.  MX 0. 3.239 0.  MX 0. 3.239 0.  SM 0. 2332.394 0.  AV 0. 3.239 0.  MONTHLY SUMMARY (OCT)  MN -209076. 3.239 0.  MN -209076. 3.239 0.  SM -35983632. 2410.141 -80761264.  AV -48365. 3.239 -108550.  MONTHLY SUMMARY (NOV)  MN -48492. 3.239 -210316.  MX -15. 3.239 -210316.  MX -15. 3.239 -210316.  MX -15. 3.239 -210316.  MN -199734. 3.239 -210316.  MX -103229. 3.239 -210316.  MX -103229. 3.239 -210316.  MX -103229. 3.239 -210316.  MN -199734. 3.239 -210316.  MN -199734. 3.239 -210316.  MN -121442312. 2410.141 -156474944.  AV -163229. 3.239 -210316.  MN -227505. 3.239 -210316.  MN -2759168512. 28377.455 -994373056.		(5)	(49)	(78)												
SM 0. 2410.141 0. AV 0. 3.239 0.  MONTHLY SUMMARY (SEP)  MN 0. 3.239 0.  MX 0. 3.239 0.  SM 0. 2332.394 0.  AV 0. 3.239 0.  MONTHLY SUMMARY (OCT)  MN -209076. 3.239 -210316.  MX 0. 3.239 0.  SM -15983632. 2410.141 -80761264.  AV -48365. 3.239 -108550.  MONTHLY SUMMARY (NOV)  MN -184892. 3.239 -210316.  MX 15. 3.239 -210316.  MX -15. 3.239 -210316.  MX -120087. 3.239 -210316.  MN -19499734. 3.239 -210316.  MN -1949734. 3.239 -210316.  MX -50457. 3.239 -210316.  MX -50457. 3.239 -210316.  MX -1512422312. 2410.141 -156474944.  AV -163229. 3.239 -210316.  YEARLY SUMMARY  MN -22750S. 3.239 -210316.  YEARLY SUMMARY  MN -22750S. 3.239 -210316.  YEARLY SUMMARY  MN -22750S. 3.239 -210316.  MX 0. 3.239 -210316.  MX -759168512. 28377.465 -994373056.	MONTHLY	SUMMARY (AUG)														
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SM 0. 2410.141 0. AV 0. 3.239 0.  MONTHLY SUMMARY (SEP)  MN 0. 3.239 0.  MX 0. 3.239 0.  SM 0. 2332.394 0.  AV 0. 3.239 0.  MONTHLY SUMMARY (OCT)  MN -209076. 3.239 -210316.  MX 0. 3.239 0.  SM -15983632. 2410.141 -80761264.  AV -48365. 3.239 -108550.  MONTHLY SUMMARY (NOV)  MN -184892. 3.239 -210316.  MX 15. 3.239 -210316.  MX -15. 3.239 -210316.  MX -120087. 3.239 -210316.  MN -19499734. 3.239 -210316.  MN -1949734. 3.239 -210316.  MX -50457. 3.239 -210316.  MX -50457. 3.239 -210316.  MX -1512422312. 2410.141 -156474944.  AV -163229. 3.239 -210316.  YEARLY SUMMARY  MN -22750S. 3.239 -210316.  YEARLY SUMMARY  MN -22750S. 3.239 -210316.  YEARLY SUMMARY  MN -22750S. 3.239 -210316.  MX 0. 3.239 -210316.  MX -759168512. 28377.465 -994373056.		0.	3.239	0.												
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AV -48365. 3.239 -108550.  MONTHLY SUMMARY (NOV)  MN -184892. 3.239 -210316.  MX -15. 4 3.239 -210316.  SM -86462528. 2332.394 -151427360.  AV -120087. 3.239 -210316.  MONTHLY SUMMARY (DEC)  MN -199734. 3.239 -210316.  MX -50457. 3.239 -210316.  SM -121442312. 2410.141 -156474944.  AV -163229. 3.239 -210316.  YEARLY SUMMARY  MN -227505. 3.239 -210316.  YEARLY SUMMARY  MN -227505. 3.239 -210316.  SM -759168512. 28377.465 -994373056.	CM	-25983632	2410 141	-80761264.												
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SM -86462528. 2332.394 -151427360. AV -120087. 3.239 -210316.  MONTHLY SUMMARY (DEC)  MN -199734. 3.239 -210316.  MX -50457. 3.239 -210316.  SM -121442312. 2410.141 -156474944.  AV -163229. 3.239 -210316.  YEARLY SUMMARY  MN -227505. 3.239 -210316.  MX 0. 3.239 0.  SM -759168512. 28377.455 -994373056.	MX	-15.	3.239 ه	-210316.												
AV -120087. 3.239 -210316.  MONTHLY SUMMARY (DEC)  MN -199734. 3.239 -210316.  MX -50457. 3.239 -210316.  SM -121442312. 2410.141 -156474944.  AV -163229. 3.239 -210316.  YEARLY SUMMARY  MN -22750S. 3.239 -210316.  MX 0. 3.239 0.  SM -759168512. 28377.465 -994373056.	SM	-86462528.	2332.394	-151427360.												
MN -199734. 3.239 -210316. MX -50457. 3.239 -210316. SM -121442312. 2410.141 -156474944. AV -163229. 3.239 -210316.  YEARLY SUMMARY MN -227505. 3.239 -210316. MX 0. 3.239 0. SM -759168512. 28377.465 -994373056.			3.239	-210316.												
MN -199734. 3.239 -210316.  MX -50457. 3.239 -210316.  SM -121442312. 2410.141 -156474944.  AV -163229. 3.239 -210316.  YEARLY SUMMARY  MN -227505. 3.239 -210316.  MX 0. 3.239 0.  SM -759168512. 28377.465 -994373056.	MONTHLY	SUMMARY (DEC)														
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AV -163229. 3.239 -210316.  YEARLY SUMMARY MN -227505. 3.239 -210316. MX 0. 3.239 0. SM -759168512. 28377.465 -994373056.	SM	-121442312.	2410.141	-156474944.												
MN -22750S. 3.239 -210316. MX 0. 3.239 0. SM -759168512. 28377.465 -994373056.			3.239	-210316.												
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MX 0. 3.239 0. SM -759168512. 28377.465 -994373056.	MN	-227505.	3.239	-210316.												
		0.	3.239	0.												
AV -86663. 3.239 -113513.	SM	-759168512.	28377.465	-994373056.												
	AV	-86663.	3.239	-113513 <i>.</i>												

ENTECH ENGINEERING BZDOB - BLITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PV-A EQUIPMENT SIZES
WEATHER FILE- BALTIMORE, MD

вопівмвит	NUMBER NUMB SIZE INSTD SIZE INSTD (MBTU/H) AVAIL (MBTU/H) AV.	SIZE INSTD	NUMBER SIZE INSTD (MBTU/H) AVAIL	NUMBER SIZE INSTO (MBTU/H) AVAIL	NUMBER SIZE INSTD (MBTU/H) AVAIL
HW-BOILER	3.800 1 1				
HERM-REC-CHLR	2.800 2 2				

ENTECH ENGINEERING BZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/8/1995 14:25:14 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY

WEATHER FILE- BALTIMORE, MD

SITE BNERGY SOURCE 9 10 11 12 13 14 2 3 4 5 FUEL ELEC FUEL TOTAL TOTAL TOTAL RLEC TOTAL TOTAL WASTED FURL TOTAL INPUT INPUT FUBL SITE SOURCE INPUT INPUT INPUT RCVRED RCVRABL HEAT COOLING ELECTR ENERGY ENERGY COOLING COOLING HEATING HEATING ELECT INPUT ENERGY \* ENERGY LOAD MONTH LOAD LOAD 2120.1 2555.4 \* 3427.4 0.0 2120.1 1535.6 0.0 435.3 0.0 0.0 0.0 JAN 0.0E 21.02 127.5E 1891.5 2284.4 \* 3071.5 64.3 0.0 0.0 1891.5 1369.5 0.0 393.0 0.0 0.0 0.0 PEB 0.02 18.8E 115.18 1825.8 2276.4 \* 3179.1 69.3 450.6 0.0 0.0 0.0 0.0 1825.8 0.0 0.0 MAR 1292.0 0.0E 20.3E 132.0B 0.0 0.0 0.0 1406.0 59.7 0.0 1406.0 1823.5 \* 2659.9 417.5 0.0 APR 973.8 122.3E 0.08 17.5B 0.0 128.1 0.0 0.0 0.0 0.0 491.6 \* 1476.3 491.6 0.0 0.0 MAY 0.0 156.6 0.0E 144.0E 37.5E 0.0 0.0 0.0 595.9 1789.5 0.0 0.0 JUN 0.0 423.3 595.9 0.0 174.5E 67.1E 0.08 312.0 0.0 0.0 0.0 0.0 666.6 \* 2001.9 0.0 666.6 0.0 0.0 JUL 0.0 648.1 91.4E 0.0E 195.2E 0.0 673.2 2021.5 291.8 0.0 0.0 0.0 AUG 0.0 608.3 673.2 0.0 85.5E 0.0E 197.1E 0.0 0.0 549.7 1650.7 191.8 0.0 0.0 SEP 0.0 332.9 549.7 0.0 0.0 56.2E 0.08 161.0E 733.9 142.0 733.9 32.8 0.0 206.2 529.4 0.0 0.0 0.0 501.1 OCT 41.6E 9.6E 155.0E 2001.0 2826.1 411.9 0.0 0.0 0.0 0.0 1589.1 63.0 0.0 1589.1 0.0 1115.6 NOV 0.0E 18.5E 120.6E 2488.9 3360.3 2053.9 0.0 435.0 0.0 0.0 0.0 0.0 2053.9 71.5 0.0 1479.0 DEC 30.0 20.9E 127.4E 1294.8 11620.2 432.4 11620.2 17670.0 \* 29787.7 0.0 2375.3 6049.8 0.0 0.0 8266.6

379.2E

126.6E

NOTE -- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES FOLLOWED BY B ARE IN MWH (THOUSANDS OF KWH)

1771.8E

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-B MONTHLY PEAK AND TOTAL ENERGY USE WEATHER FILE- BALTIMORE, MD

			· · · · · · · · · · · · · · · · · · ·	
МО	UTILITY-	BLECTRICITY	NATURAL-GAS	
	TOTAL (MBTU)	1224 957	3560.230	
JAN	PEAK (KBTU)	1224.857 31/17	16/21	
	DY/HR	31/1/	10/21	
	TOTAL (MBTU)	392.955	1891.492 3581.028	
PEB	PEAK (KBTU)	1224.857	3581.028	
	DY/HR	28/ 9	12/ 6	
	TOTAL (MBTU)	450.642	1825.799	
MAR	PEAK (KBTU)			
MAIR	DY/HR	1224.857 31/17	5/8	
	·			
	TOTAL (MBTU)	417.541	1405.998	
APR	PEAK (KBTU)	1224.857	3221.431	
	DY/HR	29/ 9	9/7	
	TOTAL (MBTU)	491.591	0.000	
MAY	PEAK (KBTU)			
1101	DY/HR	26/17	31/ 1	
	01, III	,		
	TOTAL (MBTU)	595.906		
JUN	PEAK (KBTU) DY/HR	2036.384	0.000	
	DY/HR	10/16	30/ 1	
	TOTAL (MBTU)	666.622	0.000	
JUL	PEAK (KBTU)	2085.890		
	DY/HR	25/16	31/ 1	
		673.152	0.000	
	TOTAL (MBTU) PEAK (KBTU)	673.152 2080.196 18/17	0.000	
AUG		18/17	31/ 1	
	DY/HR	10/1/	31, 1	
	TOTAL (MBTU)	549.670	0.000	
SEP	PEAR (KBTU)	1984.596	0.000	
	DY/HR	2/14	30/ 1	
	TOTAL (MBTU)	529.402	733.880	
000	PEAK (KBTU)	1793 101	3596.546	
001	DY/HR	18/15	16/ 9	
	TOTAL (MBTU)	411.936	1589.100	
VOV	PEAK (KBTU)	1224.857	3295.627	
	DY/HR	30/17		
	TOTAL (MBTU)	435.020	2053.885	
DEC	TOTAL (MBTU) PEAK (KBTU)	435.020 1224.857	3414.721	
	DY/HR		6/5	
	ONE YEAR	6049.779	11620.216	
			3596.546	
	ODE/ FIRM			

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- FS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

HEATING LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
. HW-BOILER	8266.6	100.0
LOAD SATISFIED TOTAL LOAD ON PLANT	8266.6 8266.6	100.0
COOLING LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
HERM-REC-CHLR	2375.3	100.0
LOAD SATISFIED TOTAL LOAD ON PLANT	2375.3 2375.3	100.0
ELECTRICAL LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
ELECTRICITY	6049.8	100.0
LOAD SATISFIED TOTAL LOAD ON PLANT	6049.8 6049.4	100.0

SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
HEATING LOADS	8266.6	8266.6	0.000	0.000	0
COOLING LOADS	2375.3	2375.3	0.000	0.000	0
ELECTRICAL LOADS	6049.4	6049.8	0.000	0.000	0

ENTECH ENGINEERING EZDOB - BLITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/8/1995 14:25:14 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER FILE- BALTIMORE, MD

вопіьмвит	AVG OPER RATIO	MAX LOAD (MBTU)	MON DAY HR	SIZE OPER (MBTU) HRS				
HW-BOILER	0.460	2.728	10 16 9	3.800 4728				
HERM-REC-CHLR	0.193	2.653	8 18 17	2.800 4392				

ENTECH ENGINEERING BZDOB - BLITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-I EQUIPMENT LIFE CYCLE COSTS WEATHER FILE- BALTIMORE, MD

												_			_	
E	Q	U	I	P	М	B	N	T		Т	0	Т	A	L	S	
н	-BO	ILE	R								95	.7				
••••				NC	MIN	AL	SIZ	R	(MBTU)							3.800
					MBB											1
					RST				(K\$)					86	. 8	86.8
				AN	NUA	L	CC	ST	(K\$)					1	1	1.1
				CZ	CLI	CAI		ST	(K\$)					7	8.1	7.8
						TO	TAL-		- (K\$)							95.7
н	RM-	REC	-CI	ILR							107	. 2				
				NC	MIN	AL	SIZ	E	(MBTU)							2.800
				NU	MBE	R :	INST	AL	LED							2
				P	RST		CC	ST	(K\$)					90	. 5	90.5
				Al	INUA	L	CC	ST	(K\$)					10	1.9	10.9
				c	CLI	CAI	c	ST	(K\$)					:	8.8	5.8
						TO:	TAL-		- (K\$)							107.2
		<b>-</b> -								••						
		20	MITI	ME	TT.	TYY	rat.				202	8.5				

ENTECH ENGINEERING BZDOE - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/8/1995 14:25:14 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE WEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE MBTU -	ELECTRICITY	NATURAL-GAS
CATEGORY OF USE		
SPACE HEAT	371.36	11620.20
SPACE COOL	943.72	0.00
HVAC AUX	1968.38	0.00
DOM HOT WTR	0.00	0.00
AUX SOLAR	0.00	0.00
LIGHTS	1913.42	0.00
VERT TRANS	0.00	0.00
MISC EQUIP	853.36	0.00
TOTAL	6050.23	11620.20

TOTAL SITE ENERGY 17670.00 MBTU 145.8 KBTU/SQFT-YR GROSS-AREA 145.8 KBTU/SQFT-YR NET-AREA TOTAL SOURCE ENERGY 29787.72 MBTU 245.8 KBTU/SQFT-YR GROSS-AREA 245.8 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 48.8 PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.0

NOTE ELECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

HOURLY DATA FILE 2FROM PROG 3

	ENTECH ADING,	PA	19603	EZDOE - ELITE FT. GEORGE G	S SOPTWARE DEVE . MEADE	SLOPMENT INC	DOB-2.1D EMCS STUDY	12/ 8/1995	14:25:14			
HRLY-1			LY-REPORT							PAGE	1-	1
MMDDHH	HERM-RI -CHLR ELECTR USB	EC IC	HERM-REC -CHLR LOAD		HW-BOILE R LOAD	HW-BOILE R PUBL USB BTU/HR						
	(	3)	( 1)	(18)	( 1)	(4)	( 3)					
MONTHI	Y SUMMARY	(.TAN)										
MN		0.	٥.	0.	1055869.	1678797	. 83600.					
MX		0.	0.	0.	2694685.	3560230	. 83600.					
SM		0.	0. 0. 0.	0	1535633664	2120061952	62198400					
AV		0.	0.	0.	2064024.	2849546	. 83600. . 62198400. . 83600.					
MONEMALL	Y SUMMARY	(E25)										
MN	1 SUPPLIE	0.	0	0	267650	437377	. 23553.					
MIX		0.	0. 0.	0.	2713510	3581028	83600					
		0.	0.	0.	1369465216	1891490432	55635840					
SM		0.		0.	2037895	2814718	. 23553. . 83600. . 55635840. . 82791.					
AV		u.	u.	0.	2037093.	2014/20	. 02/72.					
	Y SUMMARY		_		22422	10000	2227					
MIN.		0.	0.	0.	93491.	154///	. 0227.					
MX		0.	0.	0. 0. 0.	2603356.	34590/1	. 63600.					
SM		0.	0.	0.	1292010880.	1825/98/84	. 59673900.					
VΑ		0.	0.	0.	1736574.	2454031	. 80207.					
	Y SUMMARY											
MN		0.	0.	0.	52394.	85618	. 4611.					
MX		0.	٠ 0.	0.	2390340.	3221431	. 83600.					
SM		0.	0.	0.	973752704.	1405998464	. 50398544.					
AV		Ο.	0.	0. 0. 0.	1352434.	1952776	. 69998.					
MONTHL	Y SUMMARY	(MAY)										
MIN	55	869.	127958.	14331.	0.	0	. 0.					
MX	512	072.	1419959.	78400. 16018904.	0. 0.	0	. 0.					
SM	68576	432.	156590192.	16018904.	0.							
AV	92	173.	210471.	21531.	0.	0	. 0.					
MONTHL	Y SUMMARY	(JUN)										
MIN	55	869.	127958.	14331. 78400. 31026686.	0.							
MX	826	1090.	2399618.	78400.	0.		. 0.					
SM	171586	544.	423281024.									
			587890.		0.	0	. 0.					
MONTHL	Y SUMMARY	(JUL)										
MN	55	869.	127958.	14331.	0.	0	. 0.					
MX	877	7597.	2589726.	14331. 78400.	0.	0	. 0.					
SM	252521	L088.	648050816.	43114356.	0.							
AV	339	9410.	871036.	57949.	0.	0	. 0.					

DWAT	ENTECH E		ERING 19603	EZDOE - ELITE FT. GEORGE G.		EVELOPMENT INC	DOB-2.1D BMCS STUDY	12/ 8/1995	14:25:14	4 PDL	RUN	1
HRLY-1		HOURI	LY-REPORT					•		PAGE	2-	1
	HERM-REC	:	HERM-REC	HERM-REC	HW-BOILE R	HW-BOILE R	HW-BOILE R		·	•••••		
	-CHLR		-CHLR	-CHLR CONDENSR		FUEL.	ELECTRIC					
	ELECTRIC					USE	USB					
	USE		BTU/HR	FAN BLEC BTU/HR			BTU/HR					
	BTU/HR		BTU/HR	BTU/HR	BTU/HR	BTU/HR	BIU/RR					
	( 3)		( 1)	(18)	( 1)	(4)	( 3)					
MONTHLY	SUMMARY (	(AUG)										
MN	5586	9.	127958.	14331.	0	. 0	. 0.					
MX	87190	3.	2652918.	78400.	0	. 0	. 0.					
SM	23231204	18.	608249600.	78400. 38588352.	0	. 0	. 0.					
AV	31224	17.	817540.	51866.	0	. 0	. 0.					
MONTELT.V	SUMMARY	(CPD)										
MN				14331	0	. 0	. 0.					
MX	5586 77630	13	127958. 2273596.	14331. 78400.	0	. 0	•					
	12426210	33.	2275550.	25856538.	ō							
AV	18647		462369.	35912.	ō		. 0.					
AV	1964	,,,	462369.	33312.	v	. •						
MONTHLY	SUMMARY	(OCT)			_	_	_					
MN		Ο.	0.	0.	0	. 0	. 0.					
MX	55544	10.	1623739.	78400.	2727567	. 3596546	. 83600.					
SM	8439916	58.	206205120.	0. 78400. 19506464.	501100896	. 733879936	. 27860880.					
AV	11344	10.	277157.	26218.	673523	. 986398	. 37447.					
MONTHLY	SUMMARY	(NOV)										
MIN		0.	0.	0.	26404	. 43148	. 2324.					
MX		0.	0.	0. 0.	2456620	. 3295627	. 83600.					
SM		0.	٠ 0.	0.	1115640448	. 3295627 . 1589099264 . 2207082	. 53706204.					
AV		0.	٥.	0.	1549501	. 2207082	. 74592.					
MONTHLY	SUMMARY	(DEC)										
MIN		0.	0. 0.	0.	297574	. 486278	. 26187.					
MX		0.	0.	0.	2563440	. 3414721	. 83600.					
SM		0.	0.	٥.	1478998400	. 2053884416	. 61877376.					
AV		0.	0.	ο.	1987901	. 486278 . 3414721 . 2053884416 . 2760597	. 83169.					
YEARLY	SUMMARY											
			0.	0.	0	. 0	. 0. . 83600.					
MX			2652918.	0. 78400.	2727567	. 3596546	. 83600.					
SM	9436583	68	2375282432.	174111312.	8266602496	. 11620212736	. 371351136.					
AV	1077		271151.		943676	. 1326508	. 42392.					
_ ^v	10//				2.2070							

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FILE : FTMD4550

RBAI H-1	DING, PA	ERING 19603 LLY-REPORT	EZDOE - EL FT. GEORGE	ITE SOFTWARE D	evelopment inc	DOR-2.	1D 12/11/1995		SDL RUN 1
MMDDHH		AHU-1	AHU-1	AHU-2	AHU-2	AHU-2	AHU-3	AHU-3	
	TOT HTG COIL PWR BTU/HR	SUPPLY ELECTRIC KW	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY ELECTRIC KW	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY ELECTRIC KW	
	(5)	(49)	(78)	(5)	(49)	(78)	(5)	(49)	
MONTHLY	SUMMARY (JAN)								
MIN	-496240.	8.744	-468586.	-330594.	5.827 5.827	-312286.	-340247.	5.998	
MX	-33.								
SM	-112497064.	3252.818	-174314064.	-62960336.	2167.817	-116170392.	-63814316.	2231.126	
AV			-468586.			-312286.	-171544.	5.998	
MONTHLY	SUMMARY (FEB)								
MN	-495920.	8.744	-468586.	-332924.	5.827	-312286.	-336776.	5.998	
MX	-24.	8.744	-468586.	-24.	5.827	-312286.	-24.	5.998	
SM	-97151288.				1958.028				
AV	-289141.	8.744	-468586.	-160520.	5.827	-312286.	-162610.	5.998	
	SUMMARY (MAR)					22.00			
MN	-492234.	8.744	-468586. -468586.	-330541.	5.827	-312286.	-340192.	5.998	
MX	-8.	8.744	-468586.	-7.	5.827	-312286.	-7.	5.998	
SM	-86516976.		-174314064.				-43895268.		
AV	-232573.	8.744	-468586.	-116810.	5.827	-312286.	-117998.	5.998	
	SUMMARY (APR)				5 427	212206	330755	5.998	
MIN	-482746.	8.744	-468586.	-324569.	5.827 5.827	-312286.	-348/33.	5.998	
MIX	-2.					-312286.	U.	5.998	
SM	-50663248.		-168691024.				-21473688.		
AV	-140731.	8.744	-468586.	-58724.	5.827	-312286.	-59649.	5.998	
	SUMMARY (MAY)		_				•		
MN	0.				5.827		0.		
MX	0.								
SM	0.		0.			0.		2231.126	
AV	0.	8.744	0.	0.	5.827	0.	0.	5.998	
	Y SUMMARY (JUN)		•	0.	5.827	0.		5.998	
MN		8.744				0.			
MX	0.		0. 0.		2097.887	0.			
SM AV	0. 0.		0.	0.		0.	0.	5.998	
MONTHER S	Y SUMMARY (JUL)								
MN	Y SUMMARY (SUL)		0.	0.	5.827	0.	0.	5.998	
MIN MIX	0.					0.	^	5 000	
M.X. SM	0.		0.			0.	0.	2231.126	
SM AV	0.		0.	0.		0.	0.		
AV	v.	5.744	٠.	٠.	2.22,	•	• • •		

EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/11/1995 13:51:29 SDL RUN 1 ENTECH ENGINEERING EMCS STUDY FT. GEORGE G. MEADE 19603 READING, PA - HOURLY-REPORT PAGE 2- 1 H-1 AHU-2 AHU-2 AHU-3 AHU-3 AHU-2 AHU-1 AHU-1 AHU-1 TOT HTG SUPPLY HEATING TOT HTG SUPPLY HEATING TOT HTG SUPPLY COIL PWR ELECTRIC CAPACITY COIL PWR BLECTRIC CAPACITY COIL PWR BLECTRIC BTU/HR BTU/HR KW BTU/HR KW BTTI/HR BTU/HR KW ----(78) ----(5) ----(49) ---- (78) ---(5) ---- (49) ----(5) ---- (49) MONTHLY SUMMARY (AUG) 5.827 ٥. ٥. 5.998 0. 8.744 ٥. MN 0. 5.827 ٥. 0. 5.998 8.744 Ο. MX 0. 2231.126 3252.818 ٥. ο. 2167.817 ٥. ٥. SM 0. ٥. ٥. 8.744 5.827 5.998 ΑV ٥. 0. ο. MONTHLY SUMMARY (SEP) 5.827 ο. ٥. 5.998 8.744 ٥. 0. MN 0. 5.827 ٥. 5.998 MX ٥. 8.744 Ο. Ο. 3147.888 ٥. ٥. 2097.887 0. 2159.155 SM Ο. 8.744 ٥. 5.827 0. ٥. 5.998 ΑV Ο. MONTHLY SUMMARY (OCT) -468586. -333037. 5.827 -312286. -338105. 5.998 8.744 MN -496146. 0. -89968528. 0. -13615919. 0. -59958912. 8.744 5.827 0. 5.998 MX 0. -13777088. 2231.126 2167.817 -28273814. 3252.818 -161180. -37035. -76005. -36602. 5.827 8.744 -241851. ΑV MONTHLY SUMMARY (NOV) -333080. 5.827 8.744 -468586. -312286. -340222. 5.998 MN -495436. -468586. 0. -36984832. 8.744 0. -36465880. 5.827 -312286. 5.998 MX 0. 3147.888 -70205008. -168691024. 2097.887 -112422960. 2159.155 -102736. -101294. 5.827 -312286. ΑV -195014. 8.744 -468586. MONTHLY SUMMARY (DEC) 5.827 -312286. -340211. 5.998 MN -485971. 8.744 -468586. -330567. -312286. -33. 5.827 5.998 -468586. 8.744 MX -33. -61090688 -106770608. -60011468. 2167.817 -116170392. 2231.126 3252.818 -174314064. SM -468586. -161321. 5.827 -312286. -164222. AV 5.998 YEARLY SUMMARY -312286. -340247. 8.744 -468586. -333080. 5.827 5.998 MN 5.827 5.998 MX 0. 8.744 0. 0. Ο. -1107737728. -552078016. -291582048. 25524.291 -738244096. -295672928. 26269.715 38299.309 -66571. -252908. 5.827 -168549. -67505. 5.998 AV -126045.

ENTECH ENGINEERING

EZDOE - ELITE SOFTWARE DEVELOPMENT INC

DOE-2.1D 12/11/1995 13:51:29 SDL RUN 1

19603 FT. GEORGE G. MEADE RMCS STUDY READING, PA PAGE 1- 2 - HOURLY-REPORT ...... AHU-4 AHU-5 AHU-5 AHU-5 AHU-6 AHU-4 AHU-4 MMDDHH AHU-3 SUPPLY HEATING TOT HTG HEATING TOT HTG SUPPLY HRATING TOT HTG BLECTRIC CAPACITY CAPACITY COIL PWR CAPACITY COIL PWR RLECTRIC BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR BTTI/HR KW ---- (78) ---(5) ---- (78) ----(5) ---- (49) ---(5) ---- (49) ---- (78) MONTHLY SUMMARY (JAN) 5.827 -312286. -340247. 5.998 -321406. -382186 -330594. MN -321406. -10881. 5.998 -321406. -33. 5.827 -312286. -29. ΜX -321406. -62960336 -116170392. -63814316. 2231.126 -119563040. 2167.817 -119563040. 5.827 -171544. 5.998 -321406. -218410. -169248. ΑV -321406. MONTHLY SUMMARY (FEB) -336776. 5.998 -321406. -380875. 5.827 -312286. -332924. -321406. -312286. -24. 5.998 -321406. -398. 5.827 ΜX -321406. -24. -54637044. -69446000. -53934556. -107992424. -107992424. 1958.028 -104928096. 2015.211 SM -321406. -206685. -162610. 5.998 AV -321406. -160520. 5.827 -312286. MONTHLY SUMMARY (MAR) 5.998 -321406. ~381598. -312286 -340192. -330541. 5.827 -321406. MN -312286. 5.998 5.827 -321406. -7. -58335216. -43453192. 2167.817 -116170392. -43895268. 2231.126 -119563040. SM -119563040. 5.827 -312286. -117998. 5.998 -321406. -156815. -116810. ΑV -321406. MONTHLY SUMMARY (APR) 5.827 -324569. -312286. -328755. 5.998 -321406. -370271. MN -321406. 0. -21140704. 5.827 2097.887 5.998 2159.155 -321406. -312286. 0. -321406. 0. MX -21473688. -30901120. -115706168. -112422960. SM -115706168. -312286. -59649. 5.998 -321406. -85836. -58724. 5.827 A۷ -321406. MONTHLY SUMMARY (MAY) 5.998 ٥. Ο. 5.827 ٥. ٥. MN Ο. 0. 5.827 Ο. ٥. 5.998 Ο. ٥. ٥. Ο. MX 2231,126 Ο. Ο. ٥. 2167.817 ٥. ٥. SM ٥. 5.998 ٥. 5.827 Ο. ΑV ٥. ٥. MONTHLY SUMMARY (JUN) 5.998 ٥. Ο. 0. 0. 0. 5.827 0. 0. 0. 5.827 MX ο. ٥. 2097.887 ٥. ٥. 2159.155 a. a. SM Ο. ٥. 5.998 A۷ 0. ο. 5.827 0. 0. MONTHLY SUMMARY (JUL) 5.998 ٥. Ο. 5.827 ٥. ٥. ο. ٥. ٥. 5.827 Ο. Ο. MX 0. 2167.817 0. ٥. 2231.126 0. 0. SM 5.998 0. 5.827

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/11/1995 13:51:29 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY

H-1 = HOURLY-REPORT PAGE 2- 2

	,	19603	FT. GEORGE	G. MEADE		EMCS STUDY		PA	GE 2-
-1 	HOU =	RLY-REPORT							
	AHU-3	AHU-4	AHU-4	AHU-4	AHU-5	AHU-5	AHU-5	AHU-6	
		TOT HTG COIL PWR BTU/HR	SUPPLY BLECTRIC KW	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY BLECTRIC KW	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	
	(78)	(5)	(49)	(78)	(5)	(49)	(78)	(5)	
MONTHLY	SUMMARY (AUG)								
MIN	0.	0.	5.827 5.827	0.				0.	
MX	0.	0.	5.827	0.	0.				
SM	o.	0.	2167.817	0.	0.			0.	
AV	0.	0.	5.827	0.	0.	5.998	0.	0.	
MONTHLY	SUMMARY (SEP)								
MN	0.		5.827				0.	0.	
MX	0.	0.						0.	
SM	0.	0.			٥.		0.	0.	
AV	0.	0.	5827	0.	0.	5.998	0.	0.	
	SUMMARY (OCT)			22226	220105	5.998	- 3 21 406	-381357.	
MN	-321406.	-333037.	5.827	-312286.	-338105. 0.	5.330	0.	0.	
MX	0.	0.	5.827	0.		2.330	C17000EC	-18772948.	
			2167.817	-59958912.	-13777088.	5.998	-165887.	-50465.	
VA	-165887.	-36602.	5.827	-161180.	-37035.	5.998	-103007.	-30463.	
	SUMMARY (NOV	<b>)</b>		2.000	248222	5 000	- 221406	-202150	
MN	-321406.	-333080.	5.827	-312286.	-340222.	5.330	-321400.	- 302233.	
MIX	-321406.	0.	5.827	-312286.	0. -36984832.	2.270	-115706160	-49099744	
SM	-115706168.	-36465880.	2097.887	-112422960.	-36984832.	2139.133	-321406.	-136358.	
VA	-321406.	-101294.	5.827	-312286.	-102736.	5.996	-321406.	-130350.	
	SUMMARY (DEC			1.220	-340211.	E 000	-321406.	202155	
		-330567.		-312286.					
MX	-321406.	-33.	5.827	-312286.					
		-60011468.	2167.817	-116170392.	-61090688.	5.998	-321406.	-208978.	
AV	-321406.	-161321.	5.827	-312286.	-164222.	5.998	-321406.	-200978.	
YEARLY	SUMMARY			212206	340347	5 009	-321406	-382186	
					-340247. 0.	5.998	-321406.	-302100.	
MX					-295672928.		-759803776.		
		-291582048.	25524.291						
AV	-173471.	-66571.	5.827	-168549.	-6/505.	3.338	-1/34/1.	-00041.	

ENTECH ENGINEERING

RZDOR - RLITE SOFTWARE DEVELOPMENT INC

DOB-2.1D 12/11/1995 13:51:29 SDL RUN 1

EMCS STUDY PT. GEORGE G. MEADE 19603 READING, PA 19603 - HOURLY-REPORT PAGR 1- 3 H-1 AHU-7 AHU-8 AHU-8 AHU-8 AHU-7 MMODHH AHU-6 AHU-6 AHU-7 SUPPLY HEATING TOT HTG SUPPLY HEATING TOT HTG HEATTNG SUPPLY ELECTRIC CAPACITY COIL PWR ELECTRIC CAPACITY COIL PWR CAPACITY BLECTRIC BTU/HR BTU/HR BTU/HR BTU/HR KW BTU/HR ---- (49) ---- (78) ---(5) --- (49) ----(78) ---(5) ---- (49) ---- (78) MONTHLY SUMMARY (JAN) 6.737 -369208. -156487. 2.758 -147809. -390837. 6.890 -361032. MN -7638. 6.890 -369208. -60823. 2.758 -147809. 6.737 -361032. ΜX -47315776. 1026.056 -54984952. -134303680. -81919944. 2562.957 -137345424. 2506.197 SM -127193. 2.758 -147809. 6.890 -369208. 6.737 -361031. -220215. MONTHLY SUMMARY (FEB) -166678. 2.758 -147809. -369208. 6.737 -361032. -385263. 6.890 MN -369208. -72583. 2.758 -147809. 6.737 -361032. -635. 6.890 ΜX 926.760 -69959312. 2314.929 -124053936. -44521812. -49663828 -121306544. SM 2263.662 -361031. -208212. 6.890 -369208. -132505. 2.758 -147809. 6.737 AV MONTHLY SUMMARY (MAR) -369208. -164495. 2.758 -147809. 6.890 -361032. -390235. 6.737 6.890 -369208. -42439. 2.758 -147809. 6.737 -361032. MX -47988392. 1026.056 -54984952. -134303680. -58595960. 2562.957 -137345424. SM 2506.197 -129001. -369208. 6.890 ΑV 6.737 -361031. -157516. MONTHLY SUMMARY (APR) 2.758 6.737 6.890 -369208. -161125. -147809. -376615. -361032. 2.758 992.958 6.890 -369208. -30414. -147809. -361032. Ο. 6.737 MX -53211244. -129971296. -31243602. 2480.281 -132914928. -40114676. 2425.352 -369208. -111430. ΑV 6.737 -361031. -86788. 6.890 MONTHLY SUMMARY (MAY) 6.737 2.758 ٥. 6.890 ٥. ٥. MN ٥. Ο. 6.890 ٥. Ο. 2.758 ٥. ٥. 6.737 ٥. MX 1026.056 ο. ٥. 2562.957 ο. 0. 2506.197 SM 2.758 0. 0. 0. ٥. ٥. 6.890 MONTHLY SUMMARY (JUN) 6.737 2.758 ٥. ٥. ο. ٥. 6.890 ٥. 2.758 ٥. 6.890 0. Ο. MX 6 737 0. ٥. 2480.281 ٥. 0. 992.958 n ٥. ٥. 2425.352 SM 2.758 Ο, ٥. ο. 6.890 ٥. 0. ΑV MONTHLY SUMMARY (JUL) ٥. ٥. 2.758 ٥. 0 6.890 ٥. 6.890 ٥. ٥. ٥. MX 6.737 ٥. 2506.197 0. 2562.957 0. 0. 1026.056 ٥. SM ΑV ٥. 6.890 0. 2.758

DOE-2.1D 12/11/1995 13:51:29 SDL RUN 1 EZDOE - ELITE SOFTWARE DEVELOPMENT INC ENTECH ENGINEERING EMCS STUDY 19603 FT. GEORGE G. MEADE READING, PA - HOURLY-REPORT PAGE 2- 3 AHU-8 AHU-8 AHU-8 AHU-6 AHU-6 AHU-7 AHU-7 AHU-7 SUPPLY HEATING TOT HTG SUPPLY HEATING TOT HTG HRATING SUPPLY COIL PWR ELECTRIC CAPACITY COIL PWR ELECTRIC CAPACITY BLECTRIC CAPACITY BTU/HR BTU/HR KW BTU/HR BTU/HR KW BTU/HR ----(78) ----(5) ---- (49) --- (78) ----(78) ---(5) ---- (49) ---- (49) MONTHLY SUMMARY (AUG) 6.737 ٥. 2.758 ٥. Ο. ٥. ٥. 6.890 2.758 6.890 0. ΜX 6.737 ٥. ٥. 2562.957 ٥. 1026.056 ٥. ٥. 2506.197 SM ٥. 6.890 0. 0. 2.758 ٥. ΑV 6.737 MONTHLY SUMMARY (SEP) 6.737 6.737 ٥. 6.890 ٥. ٥. 2.758 ٥. MN 0. ٥. 6.890 ٥. 0. 2.758 ٥. MX 2480.281 ٥. ٥. 992.958 SM 2425.352 α. ٥. 0. ٥. 6.737 ٥. ΑV MONTHLY SUMMARY (OCT) 6.737 -369208. -157820. 2.758 -147809. 6.890 -361032. -386617. MN 0. -8589678. 6.890 ٥. 2.758 ٥. 6.737 ٥. MX -70887984. -28379330. -69318032. -18889846. 2562.957 1026.056 SM 2506.197 -50779. -190559. -23091. 2.758 -76289. A۷ -186339. 6.890 MONTHLY SUMMARY (NOV) 6.737, 2.758 -147809. -369208. -158712. -361032. -390809. 6.890 MIN -369208. -10. 2.758 -147809. 6.890 MX 6.737 -361032. ٥. -26522834. -49496228. -132914928. 992.958 -53211244. -129971296. 2425.352 SM -137490. 6.890 -369208. -73675. 2.758 -147809. ΑV 6.737 MONTHLY SUMMARY (DEC) 6.737 -361032. -389861. 6.890 -369208. -160454. 2.758 -147809. MN 2.758 -147809. -369208. -33. 6.890 6.737 -361032. -28244. -137345424. -42176600. 1026.056 -54984952. -78623088. 2562.957 SM 2506.197 -134303680. -361031. 6.890 -369208. -113378. 2,758 -147809. AV 6.737 YEARLY SUMMARY 6.890 -369208. -166678. 2.758 -147809. 6.737 6.737 -361032. -390837. MN 0. Ο. 6.890 ٥. n 2.758 0. MX

-872808064.

-199271.

30176.754

6.890

-388728000.

-88751.

-853478208.

-194858.

29508.449

6.737

ΑV

-257229760.

-349420512.

-79776.

12080.984

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/11/1995 13:51:29 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
PAGE 1- 4

REA	DING, PA	19603	FT. GEORGE G. MEADE	EMCS STUDY	
H-1	- HOU	RLY-REPORT			PAGE 1- 4
MMODHH	AHU-9	AHU-9	AHU-9		
	TOT HTG	SUPPLY	HRATING		
	COIL PWR	ELECTRIC	CAPACITY		
	BTU/HR	KM	BTU/HR		
	(5)	(49)	(78)		
MONTHLY	Y SUMMARY (JAN)				
MN	-183846.	3.239	-173597.		
MX	-61575.	3.239	-173597.		
SM	-54135788.	1205.071	-64578088.		
AV	-145526.	3.239	-173597.		
MONTHL	Y SUMMARY (FEB)				
MN	-195752.	3.239	-173597.		
MX	-72539.	3.239	-173597.		
SM	-51037600.	1088.451	-58328596.		
AV	-151898.	3.239	-173597.		•
MONTHL	Y SUMMARY (MAR)	)			
MIN	-193194.	3.239	-173597.		
MX	-37414.	3.239	-173597.		
SM	-54983952.	1205.071	-64578088.		
AV	-147806.	3.239	-173597.		
MONTHL	Y SUMMARY (APR	)			
MIN	-189223.	3.239	-173597.		
MX	-22765.	3.239	-173597.		
SM	-45359340.	1166.197	-62494924.		
ΑV	-125998.	3.239	-173597.		
MONTHL	Y SUMMARY (MAY				
MN	0.		0.		
MX	0.	3.239	0.		
SM	0.		0.		
AV	0.	3.239	0.		
	Y SUMMARY (JUN				<b>-</b> /
MN	0.	3.239	0.		
MX		3.239	0.		
SM	0.	1166.197	o.		
AV	0.	3.239	0.		
	Y SUMMARY (JUL				
MIN	0.	3.239	0.		
MX		3.239	0.		
SM	0.	1205.071	0.		
AV	0.	3.239	0.		

re.	ENTECH ENGI ADING, PA		EZDOE - ELIT	TE SOFTWARE	DEVELOPMENT	INC	EMCS	DOE-2.1D STUDY	12/11/1995	13:51:2	9 SDI	RUN	1
H-1	= HO	URLY-REPORT									PAGE	2 -	4
	AHU-9	АНИ-9	АНТ-9						**********				
	TOT HTG	SUPPLY	HRATING										
	COIL PWR	ELECTRIC	CAPACITY										
	BTU/HR	KW	BTU/HR										
	(5)	(49)	(78)							,			
MONTHL	Y SUMMARY (AUG	)											
MIN	0.	3.239	0.										
MX	0.	3.239	0.										
SM	0.	1205.071	0.										
AV	0.		0.										
MONTHI	Y SUMMARY (SEP	)											
MIN	0.		0.										
MX	0.		0.										
SM		1166.197	0.										
AV	0.		0.										
MONTENT	y summary (oct	"											
MN		3.239	-173597.										
MIX													
SM		1205.071											
AV.	-27636.		-89598.										
	Y SUMMARY (NOV	, , , , ,	172507										
MN		3.239	-173597. -173597.										
MX													
SM		1166.197											
AV	-84751.	3.239	-1/335/.										
MONTHI	Y SUMMARY (DEC	:)											
MIN	-183873.	3.239	-173597.										
MX	-33	3.239	-173597.						•				
SM	-48585016.	1205.071											
AV	-130605.	3.239	-173597.										
YEARL	SUMMARY			_									
MN	-195752.	3.239	-173597.	-									
MX	0.	3.239	0.										
SM	-294892480.	14188.732	-410383328.										
AV	-67327.	3.239	-93695.										

DOB-2.1D 12/11/1995 13:51:29 PDL RUN 1

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/11/1995 13:51:29 PD:
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PV-A EQUIPMENT SIZES WEATHER FILE- BALTIMORE, MD REPORT- PV-A EQUIPMENT SIZES WEATHER FILE- BALTIMORE, MD

NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER
EQUIPMENT SIZE INSTD (MBTU/H) AVAIL 
3.800 1 1 HW-BOILER HERM-REC-CHLR 2.800 2 2 ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/11/1995 13:51:29 PDL RUN 1
READING, PA 19603 PT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY WEATHER PILE- BALTIMORE, MD

					s	ITE E	NERGY	ť					SOURCE
	2	3	4	5	6	7	8	9	10	11	12	13	14
монтн	TOTAL HEAT LOAD	TOTAL COOLING LOAD	TOTAL ELECTR LOAD	RCVRED ENERGY	WASTED RCVRABL ENERGY	FUBL INPUT COOLING	ELEC INPUT COOLING	FUEL INPUT HEATING	ELEC INPUT HEATING	ELECT INPUT	TOTAL FUEL INPUT	TOTAL SITE ENERGY	SOURCE
JAN	722.4	0.0	351.0 102.8E	0.0	0.0	0.0	0.0 0.0B	1029.7	44.9 13.1E	0.0	1029.7	1380.7	2083.8
PEB	635.5	0.0	318.5 93.3E	0.0	0.0	0.0	0.0 0.0E	914.2	41.2 12.18	0.0	914.2	1232.7	1870.6
MAR	536.2	0.0	359.5 105.3B	0.0	0.0	0.0	0.0 0.0R	787.2	39.9 11.78	0.0	787.2	1146.6	1866.6
APR	317.0	0.0	325.4 95.3E	0.0	0.0	0.0	0.0 0.0E	479.5	29.9 8.7E	0.0	479.5	805.0	1456.8
MAY	0.0	161.4	475.1 139.1E	0.0	0.0	0.0	128.6 37.7E	0.0	0.0E	0.0	0.0	475.1	1426.6
JUN	0.0	401.2	535.6 156.9E	0.0	0.0	0.0	210.6 61.7E	0.0	0.0 0.0B	0.0	0.0	535.6	1608.4
JUL	0.0	585.8	567.7 166.3E	0.0	0.0	0.0	270.8 79.3E	0.0	0.0 0.0E	0.0	0.0	567.7	1704.8
AUG	0.0	554.9	589.9 172.8E	0.0	0.0	0.0	258.2 75.6E	0.0	0.0 0.0E	0.0	0.0		1771.6
SEP	0.0	306.3	507.7 148.7E	0.0	0.0	0.0	174.5 51.1E	0.0	0.0E	0.0	0.0	507.7	* 1524.7 *
OCT	153.7	185.9	470.2 137.7E	0.0	0.0	0.0	133.7 39.2E	234.4	15.3 4.5E	0.0	234.4	704.7	1646.6
NOV	400.6	0.0	317.4 92.98	0.0	0.0	0.0	0.0 0.0E	581.9	30.8 9.0E	0.0	581.9	899.3	* 1535.0 *
DEC	655.1	0.0	346.0 101.3E	0.0	0.0	0.0	0.0 0.0E	938.5	42.5 12.4B	0.0	938.5	1284.4	1977.4 •
		******	******	******				*****	******	******	******		* *****
	3420.5	2195.4	5164.0 1512.4E	0.0	0.0	0.0	1176.5 344.6E	4965.4	244.5 71.6E	0.0	4965.4	10129.5	* 20473.0 *

NOTE-- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES FOLLOWED BY E ARE IN MWH (THOUSANDS OF KWH) ENTECH ENGINEERING SZDOS - SLITE SOFTWARE DEVELOPMENT INC DOS-2.1D 12/11/1995 13:51:29 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-B MONTHLY PEAK AND TOTAL ENERGY USE WEATHER FILE- BALTIMORE, MD

NATURAL-GAS ELECTRICITY МО UTILITY-TOTAL (MBTU) 351.027 1029.682 PEAK (KBTU) 1224.857 3832.216 JAN 10/7 DY/HR 31/17 TOTAL (MBTU) 318.479 914.243 3813.680 PEB PEAK (KBTU) 1224.857 2/ 7 DY/HR 28/13 TOTAL (MBTU) 359.460 787.157 3781.433 MAR PEAK (KBTU) 1224.857 31/17 15/7 DY/HR 479.516 TOTAL (MBTU) 325.438 APR PEAK (KBTU) 1224.857 3710.000 29/9 4/7 DY/HR TOTAL (MBTU) 475.063 0.000 MAY PRAK (KBTU) 1751.475 0.000 31/ 1 26/16 DY/HR 535.593 0.000 TOTAL (MBTU) 0.000 2074.361 JUN PEAK (KBTU) 29/16 30/ 1 DY/HR 567.706 0.000 TOTAL (MBTU) PEAK (KBTU) 2383.299 0.000 JUL DY/HR 25/14 31/ 1 589.944 0.000 TOTAL (MBTU) AUG PEAK (KBTU) 2355.303 0.000 DY/HR 18/17 31/ 1 TOTAL (MBTU) 507.737 0.000 SEP PEAK (KBTU) 2047.204 0.000 2/14 30/1 DY/HR TOTAL (MBTU) 470.248 234.416 3869.026 OCT PEAK (KBTU) 1783.103 18/15 17/ 7 DY/HR 581.939 317.366 TOTAL (MBTU) 3864.251 1224.857 PEAK (KBTU) NOV 30/17 21/7 DY/HR TOTAL (MBTU) 345.968 938.474 DEC PEAK (KBTU) 1224.857 3794.358 DY/HR 30/17 6/ 7 4965.426 5164.029 ONE YEAR USE/PEAK 2383.299 3869.026 ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/11/1995 13:51:29 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

HEATING LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
HW-BOILER	3420.5	100.0
LOAD SATISFIED TOTAL LOAD ON PLANT	3420.5 3420.5	100.0
COOLING LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
HERM-REC-CHLR	2195.5	100.0
LOAD SATISFIED TOTAL LOAD ON PLANT	2195.5 2195.5	100.0
ELECTRICAL LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
BLECTRICITY	5164.0	100.0
LOAD SATISFIED TOTAL LOAD ON PLANT	5164.0 5164.1	100.0

## SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
HEATING LOADS	3420.5	3420.5	0.000	0.000	. 0
COOLING LOADS BLECTRICAL LOADS	2195.5 5164.1	2195.5 5164.0	0.000	0.000	0

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER FILE- BALTIMORE, MD

EQUIPMENT	AVG OPER RATIO	MAX LOAD (MBTU)	MON DAY HR	SIZE OPER (MBTU) HRS				
HW-BOILER	0.190	2.976	10 17 7	3.800 4728				
HERM-REC-CHLR	0.178	2.804	8 18 17	2.800 4397				

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-I EQUIPMENT LIPE CYCLE COSTS WEATHER FILE- BALTIMORE, MD

BQUIPMBNT TOTALS	;
	•
HW-BOILER 95.7	
NOMINAL SIZE (MBTU)	3.800
NUMBER INSTALLED	1
	86.8
ANNUAL COST (K\$) 1.3	1.1
CYCLICAL COST (K\$) 7.1	3 7.8
TOTAL (K\$)	95.7
HERM-REC-CHLR 107.2	
NOMINAL SIZE (MBTU)	2,800
NUMBER INSTALLED	2
	5 90.5
ANNUAL COST (KS) 10.	9 10.9
CYCLICAL COST (K\$) 5.	8 5.8
(K\$)	107.2
EQUIPMENT TOTAL 202.8	

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/11/1995 13:51:29 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE WEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE MBTU -	ELECTRICITY	NATURAL-GAS
CATEGORY OF USE		
SPACE HEAT	183.39	4965.32
SPACE COOL	825.33	0.00
HVAC AUX	1388.67	0.00
DOM HOT WTR	0.00	0.00
AUX SOLAR	0.00	0.00
LIGHTS	1913.29	0.00
VERT TRANS	0.00	0.00
MISC EQUIP	853.30	0.00
TOTAL	5163.98	4965.32

TOTAL SITE ENERGY 10129.46 MBTU 83.6 KBTU/SQFT-YR GROSS-AREA 83.6 KBTU/SQFT-YR NET-AREA 10129 ENERGY 20473.02 MBTU 168.9 KBTU/SQFT-YR GROSS-AREA 168.9 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 63.8 PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.0

NOTE ELECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

HOURLY DATA FILE 2FROM PROG 3

DOE-2.1D 12/11/1995 13:51:29 PDL RUN 1 EZDOE - ELITE SOFTWARE DEVELOPMENT INC ENTECH ENGINEERING EMCS STUDY FT. GEORGE G. MEADE PA 19603 READING, PAGE 1- 1 HRLY-1 . HOURLY-REPORT HERM-REC HERM-REC HW-BOILE HW-BOILE HW-BOILE **ММООНН** HERM-REC -CHLR -CHLR -CHLR FUEL BLECTRIC LOAD BLECTRIC LOAD CONDENSE USE PAN RLEC USB BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR ----(3) ----(1) ----(4) ----( 1) ---- (18) ----(3) MONTHLY SUMMARY (JAN) ٥. 0. 26374. 43099. 2321. MN ٥. 3832216. 83600. ٥. Ο. 2942214. ٥. MX 722364992. 1029684736. 35241144. ٥. SM 0. 970921. 1383985. 47367. 0. ΑV 0. ο. MONTHLY SUMMARY (FEB) 26374. 43099. 2321. 0. 0. 0. 2925252. 3813680. 83600. 0. ΜX 0. 0. 32522426. ٥. 635529216. 914245760. SM 0. 1360485. 48396. 945728. AV Ο. ٥. MONTHLY SUMMARY (MAR) 43099. 2321. 0. 26374. MN ٥. 2895776. 3781433. 83600. ٥. 0. ο. MX 787158464. 30304120. 536214080. ٥. SM ٥. 0. 720718. 1058009. 40731. ٥. AV 0. MONTHLY SUMMARY (APR) 26374. 43099. 2321. ٥. MN ٥. ٥. 0. 2830627. 3710000. 83600. ٥. ΜX 479514816. 20575432. 316962816. Ο. ο. SM 28577. 0. 440226. ΑV ٥. Ο. MONTHLY SUMMARY (MAY) ٥. ο. 127958. 14331. 55876. 1576978. 78400. 0. Ο. 0. MX 543182. ٥. SM 69129320. 161357264. 15730823. ٥. ٥. Ο. 0. ΑV 92916. 216878. 21144. MONTHLY SUMMARY (JUN) 14331. ٥. ٥. 127958. 55876. 78400. Ο. ٥. ٥. 2574319. ΜX 866068. 401181344. 25296698. 0. 0. ٥. 153028704. SM 0. 0. 212540. 557196. 35134. ٥. AV MONTHLY SUMMARY (JUL) ٥. ٥. 127958. 14331. ο. MN 156800. 0. Ο. ٥. MX 1175006. 2773377. 585778560. 31744514. ο. ο. 211282240. SM ٥. 283982. 787337. 42667. AV

REA	ENTECH ENGINE		EZDOE - ELITE FT. GEORGE G.		LOPMENT INC		12/11/1995	13:51:29 PDL RU	
HRLY-1		LLY-REPORT						PAGE 2-	- 1
	HERM-REC -CHLR ELECTRIC	HERM-REC -CHLR LOAD	-CHLR CONDENSR	HW-BOILE R LOAD	HW-BOILE R	HW-BOILE R BLECTRIC USB			•
	USE BTU/HR	BTU/HR	BTU/HR	BTU/HR	BTU/HR				
	(3)	( 1)	(18)	( 1)	( 4)	( 3)			•
MONTHLY	SUMMARY (AUG)								
MNZ	55876	127958.	14331.	٥.	0.	٥.			
MX	1147010	2803607.	156800. 29856962.	0. 0.	0.	0.			
SM	198758160	554925952	29856962.	٥.	0.	0.			
AV	267148.	745868.	40130.	ο.	0.	0.			
MONTHLY	SUMMARY (SEP)								
MN			14331.	0. 0.	0.	0.			
MX	838911.	127958. 2554309.	14331. 78400.	0.	0.	0.			
			20905994.		0.	0.			
AV	162453.		29036.	0.	0.	0.			
MONTHLY	SUMMARY (OCT)								
MIN	0.	0.	0. 78400.	0.	0.	0.			
MX	542373.	1566562.	78400. 17521260.	2975940.	3869026.	83600.			
SM	76176904.	185888992.	17521260.	153704544.	234415136.	10350354.			
AV	102388.	249851.	23550.	206592.	315074.	13912.			
MONTHLY	SUMMARY (NOV)								
MN	0.	0.	0.	26374.	43099.	2321.			
MX	0.	0.	0.	2971562.	3864251. 581938624. 808248.	83600.			
SM	0.	. 0.	0.	400629056.	581938624.	21548870.			
λV	0.	0.	0.	556429.	808248.	29929.			
MONTHLY	SUMMARY (DEC)								
MN	0.	٥.	0.	26374.	43099.	2321.			
MX	٥.	٥.	0.	2907585.	3794358.	83600.			
SM	٥.	0.	0.	655065792.	938475840.	32845696.			
AV	0.	0.	0. 0. 0.	880465.	1261392.	44147.			
	SUMMARY				_				
	0.	0.	0. 156800.	0.	0.	0.			
MX	1175006.	2803607.	156800.	2975940.	3869026.	83600.			
SM		2195400192.	141056240.	3420470272.	4965433344.	183388032.			
VA	94217.	250616.	16102.	390465.	566830.	20935.			

15/1-2015 - 1550 W/NGHT OFFIMEL 1 15NT FILE: FTHD4550

REAI H-1	DING, PA = HOUT	19603 LLY-REPORT	FT. GEORGE	G. MEADE		EMCS STUDY		9:17:44 SDL PAGE	
MMDDHH	AHU-1		AHU-1		АНИ-2	AHU-2	АНТ-3	AHU-3	
	TOT HTG COIL PWR BTU/HR		HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY ELECTRIC KW	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY ELECTRIC KW	
	(5)	(49)	(78)	(5)	(49)	(78)	( 5)	(49)	
MONTHLY	SUMMARY (JAN)								
101	535364	8 744	-468586	-335290.	5.827	-312286.	-345092.	5.998	
PEN	-333204.	8 744	-468586. -468586.	-33	5.827	-312286.	-29.	5.998	
CM	-33.	2252 818	-174314064	-62952272	2167 817	-116170392.	-29. -63810100.	2231.126	
AV	-303069.	8.744	-468586.	-169227.	5.827	-312286.	-171533.	5.998	
MONTHE	SUMMARY (FEB)								
MN	-537499	8 744	-468586.	-335604.	5.827	-312286.	-345423.	5.998	
MX	-337439.	9 744	-468586	-24	5.827	-312286	-345423. -24.	5.998	
PLA.	27770520	2020 020	-15744944	-53921704	1958 028	-104928096	-24. -54620408.	2015.211	
SM AV	-97279520. -289522.	8.744	-468586.	-160481.	5.827	-312286.	-162561.	5.998	
MONTHE V	SUMMARY (MAR)								
MN	-534926.	9 744	-468586	-335438	5.827	-312286.	-345315.	5.998	
	-534926.	0.744	-469596	-7	5 827	-312286	-7	5.998	
		3353 010	174214064	-43434360	2167 917	-116170392	-7. -43849988.	2231 126	
	-86608048.	3252.818	-468586.	116705	£ 077		-117876.		
AV	-232817.	8.744	-468386.	-116/05.	3.027	-312200.	-11/6/4.	3.330	
MONTHLY	SUMMARY (APR)								
MN	-517942.	8.744	-468586.	-324569.	5.827	-312286.	-32 <b>8755</b> .	5.998	
MX	-2.	8.744	-468586.	0.	5.827	-312286.	0.	5.998	
SM	-50651176.	3147.888	-168691024.	-21140704.	2097.887	-112422960.	-21473688.	2159.155	
AV	-140698.	8.744	-468586.	-58724.	5.827	-312286.	-59649.	5.998	
MONTHLY	SUMMARY (MAY)								
MIN	0.	8.744	0.	0.	5.827	0.	0.	5.998	
MX	0.		0.	0.	5.827	0.	0.	5.998	
SM	0.	3252.818	٥.	0.	2167.817	0.	0.	2231.126	
AV	0.		٥.			0.	0.	5.998	
MONTHLY	Y SUMMARY (JUN)								
MIN			0.	0.	5.827		٥.		
MX	0.	8.744	0.	0.	5.827	0.	Ο.	5.998	
SM	0.	3147.888	0.	0.	2097.887	0.	0.	2159.155	
AV	0.		0.	٥.	5.827	0.	0.	5.998	
MONTHLY	Y SUMMARY (JUL)								
MIN	0.		0.	0. 0.	5.827				
MX	٥.	8.744	0.	0.	5.827	0.	0.	5.998	
SM	0.	3252.818	0.		2167.817	0.			
AV	0.	8.744	0.	0.	5.827	0.	0.	5.998	

ENTECH ENGINEERING EZDOB - ELITE SOPTWARE DEVELOPMENT INC DOB-2.1D 12/11/1995
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
- HOURLY-REPORT PAGR 2- 1 H-1 AHU-2 AHU-2 AHU-2 AHU-3 AHU-3 AHU-1 AHU-1 AHU-1 SUPPLY SUPPLY HEATING TOT HTG SUPPLY HEATING TOT HTG TOT HIG TOT HTG COIL PWR HEATING CAPACITY COIL PWR ELECTRIC CAPACITY BLECTRIC ELECTRIC COIL PWR BTU/HR KW BTU/HR BTU/HR KW BTU/HR BTU/HR ---- (78) ---- (49) ----(5) ---- (78) ----(5) ---- (49) ----(5) ----(49) 0. MONTHLY SUMMARY (AUG) 0. 0. 0. 0. 0. 0. 5.827 0. ٥. 5.998 8.744 8.744 MN 5.827 ٥. 5.998 MX 2231.126 2167.817 3252.818 ٥. 8.744 5.827 ٥. 5.998 0. ΑV 0. MONTHLY SUMMARY (SEP) 0. 0. 0. 0. 0. 0. 5.827 5.827 5.998 8.744 0. ٥. 5.998 MX Ο. 8.744 0. 0. 0. ٥. 2097.887 0. 2159.155 3147.888 SM 5.827 8.744 ٥. 5.998 ΑV MONTHLY SUMMARY (OCT) 8.744 5.827 -312286. -329299. 5.827 0. 0. 2167.817 -59958912. -13005426. 5.827 -161180. -34961. 5.998 -468586. 0. -89968528. -241851. -328334. MON -503610. 0. -27708748. 8.744 0. 5.998 MX 0. -12849059. 2231.126 3252.818 -161180. -34961. 8.744 -34540. ΑV -74486. MONTHLY SUMMARY (NOV)
MN -537177. 8.744
MX 0. 8.744
SM -70191120. 3147.888 5.998 -468586. -468586. 5.827 5.827 2097.887 5.827 -358010. -368464. -312286. -312286.

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MN -535160. 8.744

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9:17:44 SDL RUN 1

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EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/11/1995 9:17:44 SDL RUN 1 ENTECH ENGINEERING READING, PA 19603 PT. GEORGE G. MEADE RMCS STUDY PAGR 1- 2 . HOURLY-REPORT AHU-4 AHU-4 AHU-4 AHU-5 AHU-5 AHU-5 AHU-6 MMDDHH AHU-3 HRATING SUPPLY TOT HTG HEATING TOT HTG SUPPLY HEATING TOT HTG COIL PWR COIL PWR BLECTRIC CAPACITY BLECTRIC CAPACITY CAPACITY COTT. PWR BTU/HR BTU/HR KW BTU/HR BTU/HR KW BTU/KR BTU/HR ----(5) ---- (78) ----(5) --- (78) ---(5) ---- (49) ----(78) ----(49) MONTHLY SUMMARY (JAN) 5.827 -312286. -335290. -345092. 5.998 -321406. -386159. -321406. -321406. MN -33. -62952272. -321406. -10881. 5.827 -312286. -29. 5.998 ΜX -63810100. 2231.126 -119563040. -116170392. 2167.817 SM -119563040. -171533. 5.998 -321406. -218638. -169227. 5.827 -312286. ΑV -321406. MONTHLY SUMMARY (FEB) 5.827 -387661. -312286. -345423. 5.998 -321406. MIN -321406. -321406. -335604. -312286. -24. 5.827 -24. 5.998 -321406. -398. MX -54620408. -69497976 -107992424. -53921704. 1958.028 -104928096. 2015.211 -107992424 SM -321406. -160481. 5.827 -312286. -162561. 5.998 -321406. -206839. MONTHLY SUMMARY (MAR) 5.827 -321406. -321406. -335438. -312286. -345315. 5.998 -321406. -381598. MN -7. -43414260. -312286. -7. 5.998 -321406. -7. 5.827 -43849988. 2231.126 -58306768. 2167.817 -116170392. -119563040. SM -119563040. 5.827 -312286. -117876. 5.998 -321406. -156739. -116705. ΑV -321406. MONTHLY SUMMARY (APR) -312286. -324569. 5.827 -328755. 5.998 -321406. -370271. -321406. -321406. MIN 0. 5.827 -312286. 0. 5.998 -321406. 0. MX -21140704. -21473688. -30901120. -112422960. 2159.155 -115706168. SM -115706168. 2097.887 5.827 -59649. -321406. -312286. -58724. ΑV -321406. MONTHLY SUMMARY (MAY) 5.998 5.827 0. 0. Ο. MN 5.827 ٥. ٥. 5.998 ٥. Ο. ٥. MX ٥. 2167.817 α. Ο. 2231.126 ٥. 0. 5.998 Ο. ٥. 5.827 ٥. ٥. ΑV ٥. 0. MONTHLY SUMMARY (JUN) 5.827 5.998 MIN Ο. ο. ο. 0. 0. 5.998 ٥. ٥. ٥. ٥. MX 2097.887 ٥. 0. 2159.155 0. ٥. SM 5.998 ΔV ٥. ο. 5.827 Ο. 0. 0. MONTHLY SUMMARY (JUL) 5.827 0. 5.998 MN 0. ο. 0. 0. 0. ٥. ΜX SM ٥. 2167.817 0. ٥. 2231.126 ο. ο.

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READING, PA 19603 FT. GEORGE G. MEADE

- HOURLY-REPORT DOE-2.1D 12/11/1995 9:17:44 SDL RUN 1 BMCS STUDY PAGE 2- 2 H-1 AHU-4 AHU-4 AHU-4 AHU-5 AHU-5 AHU-5 AHU-6 AHU-3 SUPPLY HEATING TOT HTG HEATING TOT HTG SUPPLY HRATING TOT HTG CAPACITY CAPACITY COIL PWR BLECTRIC CAPACITY COIL PWR RERCTRIC COIL PWR KW BTU/HR BTU/HR BTU/HR BTU/HR KW BTU/HR ---- (49) ---- (78) ---- (78) ----(5) ----(78) ----(5) ---- (49) ----(5) MONTHLY SUMMARY (AUG) 0. 0. 0. 5.827 5.827 ٥. 5.998 ٥. ٥. MN 0. ٥. 0. 5.998 ο. α. ΜX Ο. 2231.126 ٥. 2167.817 0. SM 0. ٥. ٥. 5.827 5.998 ΑV n 0. MONTHLY SUMMARY (SEP) 5.998 5.998 5.827 5.827 0. ٥. ٥. 0. MIN 0. ٥. ٥. MX ٥. 0. 2097.887 0. ٥. 2159.155 ٥. 0. SM ٥. 5.827 5.998 ٥. 0. Ο. ٥. MONTHLY SUMMARY (OCT) 5.827 -312286. -321406. -377360. -328334. -329299. 5.998 MN -321406. 0. -61709956. 0. 5.998 0. 5.827 0. 0. 0. 0. -61709956. -165887 2167.817 -12849059. -59958912. -161180. -13005426. 2231.126 SM 5.827 -34961. -48662. 5.998 -34540. -165887. ΑV MONTHLY SUMMARY (NOV) MN -321406. -358010. MX -321406. 0. -312286. 5.827 -368464. 5.998 -321406. -321406. -413887. 0. -36481672. 5.827 2097.887 -312286. 0. 5.998 0. -37002572. 2159.155 -115706168. -49118012. -112422960. SM -115706168. -102785. -321406. -101338. 5.827 -312286. 5.998 -136439. -321406. ΑV MONTHLY SUMMARY (DEC) MN -321406. -335241. MX -321406. -33. -321406. -312286. 5.998 5.998 2231.126 5.998 5.827 -345468. -382155. -33. -59950304. 5.827 -312286. -33. -321406. -27755. 2167.817 -61025792. -116170392. -119563040. -77724544. SM -119563040. -164048. -161157. 5.827 -321406. -208937. -321406. AV YEARLY SUMMARY 5.998 -321406. 5.827 -413887. -312286. MN -321406. -358010. 0. -738244096. 5.998 26269.715 0. -759803776. 0. -290709984. 5.827 0. ٥. ΜX 0. -294787968. -384984032. -759803776. 25524.291 5.827 5.998 -173471.

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READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY PAGE 1- 3 - HOURLY-REPORT AHU-8 MMDDHH AHU-6 AHU-7 AHU-7 AHU-7 AHU-8 AHU-8 SUPPLY HEATING TOT HTG SUPPLY HEATING TOT HTG SUPPLY HRATING BLECTRIC CAPACITY COIL PWR BLECTRIC CAPACITY CAPACITY COIL PWR RURCTRIC BTU/HR KW BTU/HR BTU/HR KW BTU/HR BTU/HR ΚW ----(5) ---- (78) ---- (78) ---(49) ---- (78) ----(5) ----(49) ----(49) MONTHLY SUMMARY (JAN) 6.737 6.737 -361032. -395193. 6.890 -369208. -202527. 2.758 -179073. MN -369208. 2.758 -179073. -361032. -7636. 6.890 -51361. 2562.957 -137345424. -55167116. 1026.056 -66615256. -82004208. SM 2506.197 -134303680. 6.890 -369208. -148299. 2.758 -179073. -361031. -220441. ΑV 6.737 MONTHLY SUMMARY (FEB) -369208. -202503. 2.758 -179073. -361032. -395894. 6.890 MN 6.737 6.737 -361032. -72501. -635. 6.890 -369208. 2.758 -179073. ΜX -70007592. ~60168616. -121306544. 2314.929 -124053936. -52434888. 926.760 2.758 A۷ 6.737 -361031. -208356. 6.890 -369208. -156056. -179073. MONTHLY SUMMARY (MAR) 6.737 -361032. -390235. 6.890 -369208. -203116. 2.758 -179073. MN 6.737 -361032. -7. 6.890 -369208. -33183. 2.758 -179073. -58565252. -137345424. -56696816. 2562.957 1026.056 -66615256. SM 2506.197 -134303680. -369208. -152411. -157433. 6.890 2.758 -179073. -361031. ΑV 6.737 MONTHLY SUMMARY (APR) 6.890 -369208. -201245. 2.758 -179073. -376615. 6.737 6.737 -361032. MN -179073. -361032. 6.890 -369208. -19027. 2.758 MX -31243602. -46331384. 2425.352 -129971296. 2480.281 -132914928. 992.958 -64466376. 6.890 -369208. -128698. 2.758 -179073. -86788. ΑV 6.737 -361031. MONTHLY SUMMARY (MAY) 6.890 2.758 ٥. 6.737 6.737 0. MN 0. 6.890 Ο. ο. 2.758 ٥. MX 1026.056 2562.957 SM 2506.197 0. 0. ٥. 0. 0. Ο. 6.890 ٥. ΑV 6.737 MONTHLY SUMMARY (JUN) 6.737 ٥. 2.758 6.890 MN ٥. 0. 6.737 6.890 0. Ο. 2.758 ٥. 0. ΜX SM 2425.352 0. 0. 2480.281 0. ٥. 992.958 0. 2.758 6.890 0. ٥. ΑV 6.737 Ο. Ο. 0. MONTHLY SUMMARY (JUL) 6.890 ٥. ٥. 2.758 ٥. 6.737 6.737 MN Ο. Ο. Ο. Ο. 2.758 MX

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EZDOR - ELITE SOFTWARE DEVELOPMENT INC

ENTECH ENGINEERING

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6.737

DOB-2.1D 12/11/1995 9:17:44 SDL RUN 1

RMCS STUDY READING, PA 19603 HOURLY-REPORT FT. GEORGE G. MEADE PAGE 2- 3 ----------AHU-7 AHU-7 AHU-8 AHU-8 AHU-8 AHU-6 AHU-7 AHU-6 TOT HTG SUPPLY HEATING TOT HTG SUPPLY HEATING SUPPLY HEATING COIL PWR BLECTRIC CAPACITY COIL PWR BLECTRIC CAPACITY CAPACITY BLECTRIC BTU/HR BTU/HR KW BTU/HR BTU/HR KW BTU/HR KW ---(5) ---- (78) ----(78) ---- (49) . ----(49) --- (49) ---- (78) ----(5) MONTHLY SUMMARY (AUG) 2.758 ٥. 6.737 0. 6.890 ο. 0. MN 2.758 Ο. 0. ٥. MX 6.737 ٥. 0. 6.890 1026.056 2562.957 ο. 0. SM 2506.197 n α. ٥. ٥. 6.890 0. ΑV 6.737 Ο. MONTHLY SUMMARY (SEP) 2.758 6.890 ٥. 6.737 6.737 Ο. 0. 6.890 ٥. 2.758 Ο. ٥. ٥. MX 2425.352 ٥. 2480.281 ٥. 0. 992.958 ٥. SM 0. ٥. 2.758 ٥. ٥. 6.890 ٨V MONTHLY SUMMARY (OCT) 6.737 6.737 -369208. -189252. 2.758 -179073. -361032. -378840. 6.890 MN 2.758 0. 6.890 0. ΜX 0. -69318032. ٥. -8968751. -34382056. -70887984. -18213134. 1026.056 SM 2506.197 -186339. -48960. 6.890 -190559. -24110. 2.758 -92425. AV 6.737 MONTHLY SUMMARY (NOV) 6.890 -361032. -423260. -369208. -190327. 2.758 -179073. 6.737 6.737 MN 0. -49527032. 2.758 -179073. -361032. 6.890 -369208. -16. MX -28505616. -132914928. 992.958 2480.281 2425.352 -129971296. 6.737 -137575. 6.890 -369208. -79182. 2.758 -179073. -361031. ΑV MONTHLY SUMMARY (DEC) -369208. -200480. 2.758 -179073. -389849. 6.890

6.890

6.890

6.890

30176.754

6.890

6.890

2562.957

-369208.

-369208.

-369208.

-872808064.

-199271.

0.

-137345424.

-36. -47733592.

-128316.

-203116.

-67543.

-295838176.

2.758

2.758

2.758

12080.984

2.758

2.758

1026.056

-179073.

-179073.

-96651.

-423329184.

0.

-66615256.

EZDOB - BLITE SOFTWARE DEVELOPMENT INC

ENTECH ENGINEERING

MN

ΜX

SM

A۷

MX

SM

YEARLY SUMMARY

6.737 6.737

2506.197

6.737

29508.449

6.737

6.737

-361032.

-361032.

-134303680.

-361031.

-361032.

-853478208.

-194858.

0.

-28244.

-211303.

-423260.

-388165504.

-88622.

0.

-78604688.

DOE-2.1D 12/11/1995

9:17:44 SDL RUN 1

			EZDOE - ELITE FT. GEORGE G.	MEADE	22122011	1	BMCS :	STUDY		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		KON
I-1		RLY-REPORT							 		PAGE	1-
MODHH	AHU-9		AHU-9									
		SUPPLY										
		BLECTRIC	CAPACITY									
	BTU/HR	KM	BTU/HR									
	(5)	(49)	(78)									
MONTHLY	SUMMARY (JAN)											
MN	-237854.	3.239	-210316. -210316.									
MX	-48961.	3.239	-210316.									
SM	-62827648.	1205.071	-78237464.									
AV	-168892.	3.239	-210316.									
MONTHLY	( SUMMARY (PEB)											
MIN	-238569.	3.239 3.239	-210316.									
MX	-71862.	3.239	-210316.									
SM	-59771052.	1088.451	-70666088.									
AV	-177890.	3.239	-210316.									
MONTHLY	Y SUMMARY (MAR)	ı										
MN	-238546.	3.239										
MX	-24460.	3.239	-210316.									
SM	-64518688.	1205.071	-78237464.									
AV	-173437.	3.239	-210316.									
MONTHL	Y SUMMARY (APR)											
MN	-237779.		-210316.									
MX	-40.	3.239										
	-51247936.											
AV	-142355.	3.239	-210316.									
	Y SUMMARY (MAY)	)										
MIN	0.		0.	•								
MX	0.	3.239										
SM AV	0. 0.	1205.071	0. 0.									
	Y SUMMARY (JUN		0.									
MN	0.											
MX	0.	1166.197	0.									
SM AV	0.		0.									
MONTHER	Y SUMMARY (JUL	1										
MN	1 SUMPARI (SOL		0.									
MX	0.	3.239	0.									
SM	0.		0.									
710	0.	3.239	0.									

		RING 19603	EZDOE - ELIT PT. GEORGE (	TE SOFTWARE . MEADE	DEVELOPMENT	INC	BMCS	DOB-2.1D STUDY	12/11/1995	9:17:44				
H-1	•	HOURL	Y-REPORT									PAGE	2-	4
	AHU-9		AHU-9	AHU-9										
	TOT HTG		SUPPLY	HEATING										
			BLECTRIC	CAPACITI										
	BTU/HR		KW	BTU/HR										
	(5)		(49)	(78)										
MONTHL	Y SUMMARY (	AUG)												
MIN			3.239 3.239	0.										
MX		٥.												
SM		٥.	1205.071	0.										
AV		0.	3.239	0.										
MONTHE	Y SUMMARY (	SEP)												
MN			3.239	0.										
MX			3.239	0.										
SM		٥.	3.239 1166.197	0.										
AV			3.239	0.										
MONTUL	Y SUMMARY (	וידיי												
	-22225		3.239	-210316.										
				0.										
CM	-1059495	:4	1205.071	-40380628.	-									
AV	-2848	31.	3.239	-108550.										
		(11011)												
MONTHL	Y SUMMARY	NOV	7 239	-210316										
MX MX	-22354		1 219	-210316. -210316.										
CM	222076	76	1766 197	-75713672.										
AV.	-8996	, 6 . 5 <b>6</b> .	3.239	-210316.										
MONTHL	Y SUMMARY	(DBC)												
			3.239											
MX	-:	39.	3.239	-210316. -78237464.										
SM	-537157	20.	1205.071	-78237464.										
AV	-1443	97.	3.239	-210316.										
YEARLY	SUMMARY													
MN	-2385	69.	3.239	-210316.										
MIX		٥.	3.239	0.										
SM	-3350636	80.	14188.732	-497186464.										
AV	-764	99.	3.239	-113513.										

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/11/1995 9:17:44 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY REPORT - PV-A EQUIPMENT SIZES WEATHER FILE- BALTIMORE, MD

NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER SIZE INSTD SIZ

HW-BOILER 3.800 1 1 HERM-REC-CHLR 2.800 2 2

DOE-2.1D 12/11/1995 9:17:44 PDL RUN 1

ENTECH ENGINEERING BZDOB - BLITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/11/1995 9:17:44 PDL RUN 1
READING, PA 19603 PT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY WEATHER FILE- BALTIMORE, MD

					s :	rs s	NERGY	•				•	SOURCE
	2	3	4	5	6	7	8	9	10	11	12	13 *	14
монтн	TOTAL HEAT LOAD	TOTAL COOLING LOAD	TOTAL ELECTR LOAD	RCVRED ENERGY	WASTED RCVRABL ENERGY	FUEL INPUT COOLING	ELEC INPUT COOLING	PUBL INPUT HEATING	ELBC INPUT HEATING	PUEL INPUT ELECT	TOTAL FUBL INPUT	TOTAL * SITE * ENERGY *	SOURCE
JAN	707.1	0.0	348.6 102.1B	0.0	0.0	0.0	0.0	1000.9	42.9 12.6B	0.0	1000.9	1349.5 *	
PEB	618.1	0.0	315.4 92.4B	0.0	0.0	0.0	0.0 80.0	882.4	39.2 11.5E	0.0	882.4	1197.8 *	1829.6
MAR	536.6	0.0	357.4 104.78	0.0	0.0	0.0	0.0	779.6	38.5 11.3B	0.0	779.6	1137.0	1852.8
APR	323.4	0.0	325.0 95.28	0.0	0.0	0.0	0.0 0.08	485.5	29.6 8.7E	0.0	485.5	810.5	1461.4
MAY	0.0	186.8	476.5 139.68	0.0	0.0	0.0	137.5 40.3E	0.0	0.0 0.0B	0.0	0.0	476.5 *	1430.9
JUN	0.0	421.1	532.0 155.8E	0.0	0.0	0.0	216.9 63.5E	0.0	0.0 0.0 <b>8</b>	0.0	0.0	532.0	1597.7
JUL	0.0	587.5	567.9 166.3E	0.0	0.0	0.0	271.0 79.4E	0.0	0.0 0.08	0.0	0.0	567.9 *	1705.4
AUG	0.0	571.3	589.1 172.5E	0.0	0.0	0.0	262.5 76.9E		0.0 0.08	0.0	0.0	589.1	1769.1
SEP	0.0	346.4	505.0 147.9E	0.0	0.0	0.0	188.5 55.2E		0.0E	0.0	0.0	505.0	1516.5
ост	146.0	220.6	475.9 139.4E	0.0	0.0	0.0	147.1 43.1E	222.0	14.7 4.3B	0.0	222.0	697.9	1651.2
NOA	399.2	0.0	316.9 92.8E	0.0	0.0	0.0	0.0E	577.6	30.4 8.9B	0.0	577.6	894.4	1529.1
DEC	644.3	0.0	343.9 100.7E	0.0	0.0	0.0	0.0		40.7 11.98		915.9	1259.8	1948.7
	3374.7	2333.7	5153.6 1509.4B	0.0	0.0	0.0	1223.4 358.3E	4863.9	235.9 69.1B	0.0	4863.9	10017.5	20340.2

NOTE-- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES FOLLOWED BY E ARE IN MWH (THOUSANDS OF KWH)

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/11/1995 9:17:44 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-B MONTHLY PEAK AND TOTAL ENERGY USE WEATHER FILE- BALTIMORE, MD

ELECTRICITY NATURAL-GAS UTILITY-MO TOTAL (MBTU) 348.582 1000.895 4046.859 JAN PEAK (KBTU) 1224.857 24/ 7 DY/HR 31/17 TOTAL (MBTU) 315.409 882.404 4054.244 FEB PEAK (KBTU) 1224.857 22/ 7 28/14 DY/HR 779.637 TOTAL (MBTU) 357.354 1224.857 31/17 4030.147 7/7 PEAK (KBTU) DY/HR TOTAL (MBTU) 324.968 485.541 APR PEAK (KBTU) 1224.857 3932.164 29/9 4/7 DY/HR 0.000 TOTAL (MBTU) 476.498 0.000 1786.818 MAY PEAK (KBTU) 31/ 1 6/17 DY/HR 0.000 TOTAL (MBTU) 532.033 0.000 JUN PEAK (KBTU) 2070.927 29/16 30/1 DY/HR 567.905 0.000 TOTAL (MBTU) 2380.704 PEAK (KBTU) JUL 25/14 31/ 1 · DY/HR 0.000 589.122 TOTAL (MBTU) 2356.959 0.000 PEAK (KBTU) AUG DY/HR 18/17 31/ 1 TOTAL (MBTU) 504.998 0.000 PEAK (KBTU) 2047.190 0.000 SEP 30/1 DY/HR 2/14 TOTAL (MBTU) 475.942 221.967 OCT PEAK (KBTU) 1787.435 3905.944 24/ 7 18/15 DY/HR 577.580 TOTAL (MBTU) 316.869 1224.857 4178.415 NOV PEAK (KBTU) 30/17 DY/HR 343.941 915.874 TOTAL (MBTU) 4027.186 DEC PEAK (KBTU) 1224.857 30/17 19/7 4863.899 ONE YEAR 5153.622 4178.415 2380.704 USB/PEAK

ENTECH ENGINEERING BZDOE - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/11/1995 9:17:44 PDL RUN 1
READING, PA 19603 FT. GBORGE G. MEADE ENCS STUDY
REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

HEATING LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
HW-BOILER	3374.7	100.0
LOAD SATISFIED TOTAL LOAD ON PLANT	3374.7 3374.7	100.0
COOLING LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
HERM-REC-CHLR	2333.8	100.0
LOAD SATISFIED TOTAL LOAD ON PLANT	2333.8 2333.8	100.0
ELECTRICAL LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
ELECTRICITY	5153.6	100.0
LOAD SATISPIED TOTAL LOAD ON PLANT	5153.6 5153.6	100.0

## SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
				•	
HEATING LOADS	3374.7	3374.7	0.000	0.000	0
COOLING LOADS	2333.8	2333.8	0.000	0.000	0
ELECTRICAL LOADS	5153.6	5153.6	0.000	0.000	0

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/11/1995 9:17:44 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER PILE- BALTIMORE, MD

	AVG	MAX	MON					
вопіьмвиц	OPER RATIO	LOAD (MBTU)	DAY HR	SIZE OPER (MBTU) HRS				
HW-BOILER	0.188	3 767	11 28 7	3.800 4728				
HERM-REC-CHLR	0.190	2.810	8 18 17	2.800 4396				
nann-kac-Cnin	0.150	2.010	0 10 17					

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/11/1995 9:17:44 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-I EQUIPMENT LIFE CYCLE COSTS WEATHER FILE- BALTIMORE, MD

EQUIPMENT TOTALS HW-BOILER NOMINAL SIZE (MBTU) 3.800 NUMBER INSTALLED FIRST COST (K\$) ANNUAL COST (K\$) 1.1 7.8 1.1 7.8 CYCLICAL COST (K\$) 95.7 -----(K\$) NOMINAL SIZE (MBTU)
NUMBER INCTATAL HERM-REC-CHLR 2.800 NUMBER INSTALLED FIRST COST (K\$) ANNUAL COST (K\$) 90.5 10.9 10.9 CYCLICAL COST (RS)
----TOTAL---(RS) 5.8 5.8 107.2

202.8

EQUIPMENT TOTAL

ENTECH ENGINEERING BZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/11/1995 9:17:44 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- BEPS BSTIMATED BUILDING ENERGY PERFORMANCE WEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE MBTU -	ELECTRICITY	NATURAL-GAS
ATEGORY OF USE		
SPACE HEAT	174.79	4863.80
SPACE COOL	872.24	0.00
HVAC AUX	1339.96	0.00
DOM HOT WTR	0.00	0.00
AUX SOLAR	0.00	0.00
LIGHTS	1913.30	0.00
VERT TRANS	0.00	0.00
MISC EQUIP	853.30	0.00
TOTAL	5153.59	4863.80

TOTAL SITE ENERGY 10017.52 MBTU 82.7 KBTU/SQFT-YR GROSS-AREA 92.7 KBTU/SQFT-YR NET-AREA TOTAL SOURCE ENERGY 20340.24 MBTU 167.8 KBTU/SQFT-YR GROSS-AREA 167.8 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 57.1 PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.0

NOTE ELECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

HOURLY DATA FILE 2FROM PROG 3

	ENTECH ENG	A 19603	EZDOB - ELITE FT. GEORGE G.	S SOFTWARE DEVE . MEADE	LOPMENT INC	DOB-2.1D BMCS STUDY	12/11/1995	9:17:44 PDL 1	
HRLY-1	4-	OURLY-REPORT						PAGE	1- 1
MMDDHH	HERM-REC -CHLR ELECTRIC USE	HERM-REC -CHLR	HERM-REC -CHLR CONDENSR FAN ELEC	HW-BOILE R	HW-BOILE R FUEL USE	HW-BOILE R ELECTRIC USE			
	BTU/HR	BTU/HR	BTU/HR	BTU/HR	BTU/HR	BTU/HR			
	( 3)	( 1)	(18)	( 1)	(4)	(3)			
MONTHLY	SUMMARY (JA	N)							
MON	0.	0.	0.	26374.	43099	2321. 83600.			
MX	٥.	0.	0. 0.	3139644.	4046859	83600.			
SM	0.		0.	707061056.	1000897728	33310870.			
AV	0.		0.	950351.	1345293	44773.			
MONTHLY	SUMMARY (FE		_		43.00	2321.			
MN	0.		0.	26374.	43099				
MX	0.		0.	3146471.	4054244	83600. 3. 30478252.			
SM	0.								
VA	0.	0.	0.	919832.	1313105	i. 45355.			
	SUMMARY (MA			26274	43000	2321.			
MN	٥.		u.	20374.	4030147	2321.			
MIX	0.		0.	3124205.	4030147	2321. 7. 83600. 0. 28861052.			
SM	0.		0.	536580768.	779638720	28861052.			
AV	0.	0.	0.	721211.	1047902	2. 38792.			
	SUMMARY (A			26774	43000	2221			
MN	0.		0.	26374. 3033914.	2072164	9. 2321. 4. 83600.			
MX		0.	0.	3033914.	105540754	20318444.			
SM		0.	0.	323352128.	485540250	20310444.			
VA	٥.	. 0.	0.	449100.	6/4707	1. 28220.			
MONTHLY	SUMMARY (M	YY)							
MN	55877	. 127958.	14331.						
MX	578525	. 1649051. . 186799776.	78400.			0.			
SM	77972288		17196164.	0.					
VA	104801	. 251075.	23113.	0.	(	0.			
	SUMMARY (J	JN)			,	o. o.			
MIN	55877	. 127958. . 2556978.	14331.	0. 0.		J. 0.			
MIX	862634	. 2556978.	78400.			o. o.			
		. 421134912.	26129076.			). 0. 3. 0.			
AV	221232	. 584910.	36290.	0.	(	J. 0.			
	SUMMARY (J		14221	0	(	0. 0.			
MIN	55877	. 127958. . 2764073.	14331. 156800.	0. 0.	(				
	1172411 211480560	. 2764073.							
SM			31708070.						
VA	284248	789614.	42618.	0.	,	0.			

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	ENTECH ENGINE	ERING	EZDOB - ELITE FT. GEORGE G.	SOFTWARE DEVE	LOPMENT INC	DOB-2.1D	12/11/1995	9:17:44 PDL RU
READ RLY-1		LY-REPORT	Fr. GEORGE G.	MEADE		MC3 310D1		PAGE 2-
	HERM-REC		HERM-REC	HW-BOILE	HW-BOILE	HW-BOILE		
	-CHT.P	-CHLR	-CHLR	R	R	R		
	RI ECTOIC	TOAD	CONDENSR	LOAD	FUBL	ELECTRIC		
	USB		DAM DIEC		TICE	USE		
	BTU/HR	BTU/HR	BTU/HR	BTU/HR	BTU/HR	BTU/HR		
	( 3)	( 1)	(18)	( 1)	( 4)	(3)		
MONTHLY	SUMMARY (AUG)							
MN	55877.	127958.	14331.	0.				
MX	1148666.	127958. 2809784.	156800.	0.	0.	0.		
SM			30172288.	0.	0.	0.		
AV			40554.	0.	0.	0.		
	SUMMARY (SEP)							
MN	55877.	127958.	14331.	0.	0.			
MX	838896.	2553744.	78400.	0.	0.	0.		
SM	130930624.	346440800.	23279312.	٥.	0.	0.		
		481168.		٥.	0.	0.		
ONTHLY	SUMMARY (OCT)							
MIN	0.	0.	0. 78400.	0.	0.	0. 83600.		
MX	549454.	1583580.	78400.	3009819.	3905944.	83600.		
SM	89507552.	220650336.	20056224.	146038768.	221966624.	9694508.		
AV	120306.	296573.	26957.	196289.	298342.	13030.		
	SUMMARY (NOV)		_					
MN	0.		0.	26374. 3261586.	43099.	2321. 83600.		
MX	0.		0.	3261586.	4178415.			
SM	0.			399202016.				
AV	0.	0.	0.	554447.	802193.	29279.		
	SUMMARY (DEC)	^	0	26374	43099	2321.		
MN	0.	0. 0.		3121471	43099. 4027186.	83600.		
MX	0.		0.	644309120.	915877120	31048996		
SM AV	0.	0.	0.	866007.	1231018.	41733.		
VEARLY	SUMMARY							
MN	0.	0.	- O.	0.	0.	0.		
MX	1172411	2809784.	156800.	3261586.	4178415.	83600.		
	977779616	2333749504	148541136	3374671360.	4863906816.	174793344.		
	0/2237013.	266410	16957	385236	555241.	19954.		
MX SM AV	1172411. 872239616. 99571.	23	33749504.	33749504. 148541136.	33749504. 148541136. 3374671360.	333749504. 148541136. 3374671360. 4863906816.	0.     0.     0.     0.     0.       2809784.     156800.     3261586.     4178415.     83600.       133749504.     148541136.     3374671360.     4863906816.     174793344.       266410.     16957.     385236.     555241.     19954.	33749504. 148541136. 3374671360. 4863906816. 174793344.

BUILDING 4550 SETBACK VENT & RESET FILE: FTMD4550

RBA H-1	DING, PA	RERING 19603 RLY-REPORT	EZDOE - EL FT. GEORGE	ITE SOFTWARE I G. MEADE	DEVELOPMENT INC	EMCS STUDY	1D 12/11/1995	*****	1- 1
MMDDHH	AHU-1	AHU-1	AHU-1	AHU-2	AHU-2		AHU-3	AHU-3	
	TOT HTG COIL PWR BTU/HR	SUPPLY BLBCTRIC KW	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY ELECTRIC KW	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY ELECTRIC KW	
	(5)	(49)	(78)	(5)	(49)	(78)	(5)	(49)	
MONTHLY	SUMMARY (JAN)								
MIN	-540626.	8.744	-468586.	-360309.	5.827	-312286.	-370830.	5.998	
MV.		8.744	-468586.	-4.	5.827	-312286.	-370830. -4.	5.998	
SM	-109532368.	3252.818	-174314064.	-62984500.	2167.817	-116170392.	-64171812.	2231.126	
AV	-294442.	8.744	-468586.	-169313.	5.827	-312286.	-172505.	5.998	
MONTHLY	SUMMARY (FEB)								
MIN	-539012.	8.744		-359233.	5.827	-312286.	-369723.	5.998	
MX	-2012.	8.744	-468586.	-5.	5.827		-3.	5.998	
SM	-93796096.	2938.029	-157444944.		1958.028	-104928096.	-54835416.	2015.211	
VA	-279155.	8.744	-468586.	-160225.	5.827	-312286.	-163201.	5.998	
	SUMMARY (MAR)								
MN	-533390.	8.744	-468586. -468586.	-356510.	5.827	-312286.	-366920.	5.998	
MX	0.	8.744	-468586.	0.	5.827	-312286.	α.	5.998	
SM	-85381808.	3252.818	-174314064.	-46620136.			-47204816.		
AV	-229521.	8.744	-468586.	-125323.	5.827	-312286.	-126895.	5.998	
	SUMMARY (APR)						350350		
MIN	-504038.	8.744	-468586. -468586.	-345788.	5.827	-312286. -312286.	-350350. 0.		
MX	0.	8.744	-468586.	0.	5.827	-312286.	0.		
	-50697764.		-168691024.	-24560794.	2097.887		-24713418.		
AV	-140827.	8.744	-468586.	-68224.	5.827	-312286.	-68648.	5.998	
	Y SUMMARY (MAY)				5 227			5 000	
MN		8.744	0.	0.	5.827	0.	0. 0.	5.998	
MX	0.	8.744	0.	0.	5.827	0.	u.	2231.126	
SM		3252.818	0.		2167.817	0.			
AV	0.	8.744	٥.	0.	5.827	0.	U.	5.998	
	Y SUMMARY (JUN)				5.827		0.	F 000	
MIN									
MX	0.	8.744	0.	٥.	2097.887	0.		2159.155	
SM AV			0.			0.		5.998	
MANEGRA	Y SUMMARY (JUL)								
MIN		8 744	0.	0.	5.827	0.	0. 0.	5.998	
MIX			0.	0.	5.827 5.827	0.	0.	5.998	
SM					2167.817	o.	0.	5.998 2231.126	
	0.		0.	0.		0.	0.	5.998	
A۷	0.	0.744	٠.	٧.		٠.	٠,٠		

DOE-2.1D 12/11/1995 13:32: 3 SDL RUN 1 EZDOE - ELITE SOFTWARE DEVELOPMENT INC ENTECH ENGINEERING EMCS STUDY READING, PA 19603 FT. GEORGE G. MEADE - HOURLY-REPORT ..... AHU-1 AHU-1 AHU-2 AHU-2 AHU-2 AHU-3 AHU-3 AHU-1 TOT HTG SUPPLY HEATING TOT HTG HEATING TOT HTG SUPPLY COIL PWR ELECTRIC CAPACITY COIL PWR ELECTRIC BLECTRIC CAPACITY COTI. PWR BTU/HR BTU/HR KW BTU/HR BTU/HR KW BTU/HR ---- (78) ---(5) ---- (78) ----(5) ---- (49) ---- (49) ----(5) ----(49) MONTHLY SUMMARY (AUG) 5.827 ο. ٥. 5.998 8.744 Ο. ٥. 0. 0. 5.827 0. 5.998 ΜX ٥. 8.744 ٥. ٥. 2167.817 ٥. ٥. 2231.126 3252.818 ٥. ٥. SM 0. 5.827 Ο. ٥. 5.998 ΑV 0. MONTHLY SUMMARY (SEP) ٥. 5.827 ٥. 5.998 0. 8.744 MN ٥. ٥. ٥. 5.827 0. 0. 5.998 8.744 ΜX ٥. 3147.888 Ο. 0. 2097.887 ٥. Ο. 2159.155 SM ٥. 0. ٥. 5.827 ٥. 5.998 ΑV 0. 8.744 0. MONTHLY SUMMARY (OCT) -329878. 5.827 -312286. -331982. 5.998 -502903. 8.744 -468586. 5.998 8.744 0. 5.827 0. МX ٥. 0. -12287959 -22606012. -89968528. -12031191. 2167.817 -59958912. 2231.126 3252.818 SM -33032. ΑV -241851. -32342. 5.827 -161180. 5.998 MONTHLY SUMMARY (NOV) -368464. 5.998 -358010. 5.827 -312286. -537177. 8.744 -468586. 5.827 -312286. 5.998 -468586. ٥. MX ٥. 8.744 -68558976. -38204860. 2097.887 -112422960. -39045600. 2159.155 3147.888 SM -468586. -106125. 5.827 -312286. -108460. 5.998 ΑV -190442. MONTHLY SUMMARY (DEC) 8.744 -468586 -356666. 5.827 -312286. -367081. 5.998 -535160. MN -312286. -3. 5.827 5.998 ΜX -49035. 8.744 -468586. -4. -59125344. -60441212. 2231.126 2167.817 -174314064. SM -103612936. 3252.818 8.744 -158939. 5.827 -312286. -162476. 5.998 ΑV -278529. YEARLY SUMMARY -468586. -360309. 5.827 -312286. -370830. 5.998 -540626. 8.744

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DOB-2.1D 12/11/1995 13:32: 3 SDL RUN 1 EMCS STUDY 19603 FT. GEORGE G. MEADE READING, - HOURLY-REPORT PAGE 1- 2 ------AHU-5 AHU-6 AHU-4 AHU-4 AHU-4 AHU-5 AHU-5 AHU-3 MMDDHH HEATING TOT HTG SUPPLY HEATING TOT HTG TOT HTG SUPPLY HEATING CAPACITY COIL PWR BLECTRIC CAPACITY COIL PWR ELECTRIC COIL PWR CAPACITY BTU/HR BTU/HR KW BTU/HR BTU/HR KW BTU/HR BTU/HR ----(78) ---(5) ----(49) ---(78) ----(5) --- (49) ----(5) ---- (78) MONTHLY SUMMARY (JAN) -312286. -370830. 5.998 -321406. -416545. 5.827 -360309. -321406. -312286. -4. -64171812. 5.998 -321406. -6424 5.827 MX -321406. -4. -79192448. -119563040. 2231,126 -62984500. 2167.817 -116170392. -119563040. SM -312286. -172505. 5.998 -321406. -169313. 5.827 -321406. ΑV MONTHLY SUMMARY (FEB) -321406. -414738. 5.998 -359233. 5.827 -312286. -369723. -321406. MN 5.998 -321406. -1115. -5. 5.827 -312286. -3. ΜX -321406. -53835632. -54835416. 2015.211 -107992424. -67606088. 1958.028 -104928096. -107992424. -160225. 5.827 -312286. -163201. 5.998 -321406. -201209. AV -321406. MONTHLY SUMMARY (MAR) -312286. -366920. 5.998 -321406. -409869. -356510. 5.827 -321406. -321406. MN 5.827 -312286. 0. 5.998 -321406. 0. Ο. MX -47204816. -59381284. -46620136. 2231.126 -119563040. -119563040. 2167.817 -116170392. SM -312286. -126895. -321406. -159627. ΑV -321406. -125323. 5.827 MONTHLY SUMMARY (APR) 5.998 -321406. -374022. -312286. -350350. -321406. -321406. -345788. 5.827 5.827 -312286. 0. 5.998 -321406. 0. ٥. MX -33978440. -24713418. -115706168. -24560794. 2159.155 -115706168. 2097.887 -112422960 SM -94385. 5.998 -68648. -312286. ΑV -321406. -68224. 5.827 MONTHLY SUMMARY (MAY) 5.998 0. ٥. ٥. ٥. 5.827 MN 5.827 ٥. 0. 5.998 ٥. ٥. ΜX Ο. 0. 0. 2167.817 ٥. Ο. 2231.126 ٥. ٥. ٥. SM Ο. 0. AV ٥. ٥. 5.827 0. Ο. 5.998 MONTHLY SUMMARY (JUN) Ο. 5.998 ο. ٥. Q. 5.827 MN О. 5.998 ٥. ٥. ٥. ٥. 5.827 ΜX Ο. ٥. ٥. 2097.887 Ο. ٥. 2159.155 ο. ٥. ٥. SM ٥. ٥. 5.827 Ο. Ο. 5.998 ٨V MONTHLY SUMMARY (JUL) ٥. 5.998 ٥. ٥. 5.827 0. ٥. MN ٥. ٥. 5.998 ٥. Q. 5.827 ٥. 0.

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ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/11/1995 13:32: 3 SDL RUN 1

REAL			FT. GEORGE	G. MEADE		EMCS STUDY		PAGE	,
1		HOURLY-REPORT						PAGE	
		AHU-4	AHU-4	AHU-4	AHU-5	AHU-5	AHU-5	AHU-6	
	HEATING CAPACITY	TOT HTG COIL PWR BTU/HR	SUPPLY BLECTRIC KW	HEATING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY BLECTRIC KW		TOT HTG COIL PWR BTU/HR	
		(5)				(49)	(78)	( 5)	
ONTHLY	SUMMARY (A)	UG)		•	^	5.998	٥.	٥.	
MIN	0	. 0.	5.827 5.827	0.	0.	5.998	0.		
MX		. 0.	5.827 2167.817	0.	0.	2221 126	0.		
SM	0	. 0.	2167.817	0.	u.	2231.126	0.		
AV	0	. 0.	5.827	0.					
ONTHLY	SUMMARY (S	EP)	5.827 5.827	_	_		•	0.	
MN	_	. 0.	5.827	0.	U.	5.998	0.	Ů.	
MX	0	. 0.	5.827	0.	0.	5.998 2159.155	0.	0.	
SM	0	. 0.	2037.007	0.					
AV	0	. 0.	5.827	0.	0.	5.998	0.	0.	
MONTHLY	SUMMARY (O	CT)					337.406	200624	
MN	-321406	329878. . 0.	5.827	-312286.	-331982.	5.998	-321406.	-380634.	
MX	0	. 0.	5.827	0.	0.	5.998	0.		
SM	-61709956	12031191.	2167.817	-59958912.	-1228/959.	2231.126	-61/09936.	-13674317.	
VA	-165887	32342.	5.827	-161180.	-33032.	5.998	-165887.	-42189.	
MONTHLY	SUMMARY (N	ov)					321.406	413000	
MIN	-321406	358010. . 0.	5.827	-312286.	-368464.	5.998	-321406.	-413887.	
MX	-321406	. 0.	5.827	-312286.	0.	5.998	-321406.		
SM	-115706168	38204860.	2097.887	-112422960.	-39045600.	2159.155	-115706168.	-48541308.	
AV	-321406	106125.	5.827	-312286.	-108460.	5.998	-321406.	13483/.	
MONTHLY	SUMMARY (D	BC)		242265	367005	5 000	- 321405	-412222	
WM	-321406	356666. -4.	5.827	-312286. -312286.	-36/081.	5.998	-321406.	-32421	
MX	-321406	-4.	5.827	-312286.	-3.	2.25	-321406.	-75002200	
SM	-119563040	-356666. -4. -59125344.	2167.817	-116170392.	-60441212. -162476.	2231.126	-117703040.	-73092200.	
AV	-321406	-158939.	5.827	-312286.	-162476.	5.998	-321406.	-201861.	
YEARLY	SUMMARY			24.2255	370030	E 000	-371406	-416545	
MN	-321406	360309. . 0.	5.827	-312286.	-3/0830.	5.798	-321406.	*************	
MX	C	0.	5.827	0.	0.	3.998	750003776	- 379406144	
SM	-759803776	297362432.	25524.291	-738244096.	-302700224.	26269.715	-/59803//6.	-3/9486144.	
AV	-173471	67891.	5.827	-168549.	-69110.	5.998	-173471.	-55541.	

DOB-2.1D 12/11/1995 13:32: 3 SDL RUN 1 EZDOB - ELITE SOFTWARE DEVELOPMENT INC ENTECH ENGINEERING EMCS STUDY READING, PA 19603 FT. GEORGE G. MEADE PAGE 1- 3 - HOURLY-REPORT ........... AHU-8 AHU-8 MMDDHH AHU-6 AHU-6 AHU-7 AHU-7 AHU-7 AHU-8 SUPPLY HEATING TOT HTG SUPPLY HEATING TOT HTG SUPPLY HRATING ELECTRIC CAPACITY COIL PWR ELECTRIC CAPACITY CAPACITY COIL PWR RERCTRIC BTU/HR KW BTU/HR BTTI/HR ΧW BTU/HR BTU/HR ---(5) ---- (49) ---- (78) ----(5) ---- (49) ---- (49) ---- (78) MONTHLY SUMMARY (JAN) 2.758 -201093. -179073. 6.737 -425978. 6.890 -369208. MN -361032. -369208. -30259. 2.758 -179073. 6.890 ΜX 6.737 -361032. -5772. -79994200. 2562.957 -137345424. -54198420. 1026.056 -66615256. -134303680. 2506.197 SM -361031. -215038. 6.890 -369208. -145695. 2.758 -179073. ΑV 6.737 MONTHLY SUMMARY (PEB) 2.758 -179073. -361032. -420897. 6.890 -369208. -201923. 6.737 6.737 MN -361032. -1018. 6.890 -369208. -64674. 2.758 -179073. ΜX -68281824. 2314.929 -124053936. -51882668. 926.760 SM 2263.662 -121306544. -203220. 6.890 -369208. -154413. 2.758 -179073. -361031. A٧ 6.737 MONTHLY SUMMARY (MAR) 6.737 -369208. -203116. 2.758 -179073. 6.890 -420480. MN -361032. -179073. 6.890 -369208. -19561. 2.758 -361032. 0. MX 6.737 -60071876. 2562.957 -137345424. -56002536. 1026.056 -66615256. 2506.197 -134303680. SM -150544. 2,758 -179073. ΑV 6.737 -361031. -161484. 6.890 -369208. MONTHLY SUMMARY (APR) -179073. 6.737 2.758 -361032. -379294. 6.890 -369208 -202463. MN 2.758 -179073. -10396. -369208. 6.737 -361032. 0. 6.890 МX -34346116. -132914928. -45152384. 992.958 -64466376 2480.281 -129971296. SM 2425.352 -95406. 6.890 -369208. -125423 2.758 -179073. -361031. 6.737 ΑV MONTHLY SUMMARY (MAY) ٥. 6.890 0. 0. 2.758 0. 6.737 6.737 MN 2.758 Ο. 0. ΜX 0. 0. 6.890 0. ٥. 1026.056 Ο. 2562.957 SM 2506.197 0. Ο. ٥. ٥. 6.890 0. 0. 2.758 ٥. ΑV 6,737 MONTHLY SUMMARY (JUN) 6.737 ٥. 6.890 ο. α. 2.758 ο. MN 2.758 MX 6.737 0. ٥. 6.890 ο. ٥. ٥. ٥. 2480.281 Ο. SM 2425.352 0. ٥. ο. 2.758 0. Ο. ΑV 6.737 MONTHLY SUMMARY (JUL) 6.890 0. n 2.758 Ω. 6.737 6.737 MN 2.758 Ο. Ο. MX ٥. Ο. 6.890 ٥. 2562.957 1026.056 0. SM 2506.197 0. 6.890 ο. 2.758 ο.

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ENTECH ENGINEERING BZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/11/1995 13:32: 3 SDL RUN 1 READING. PA 19603 FT. GEORGE G. MEADE EMCS STUDY

READING, PA 19603 HOURLY-REPORT PAGE 2- 3 H-1 - HOURLY-REPORT -----AHU-7 AHU-8 AHU-8 AHU-8 AHU-6 AHU-7 AHU-7 AHU-6 SUPPLY HEATING TOT HTG SUPPLY HEATING HEATING TOT HTG STEPPT.Y ELECTRIC COIL PWR BLECTRIC CAPACITY COIL PWR CAPACITY CAPACITY BLECTRIC BTU/HR KW BTU/HR BTU/HR BTU/HR BTU/HR KW ---- (78) --- (5) ---- (49) ---- (78) ----(5) --- (49) ---- (78) ----(49) MONTHLY SUMMARY (AUG) 6.737 6.890 2.758 ο. ο. 6.890 Ο. 0. 2.758 ٥. 0. 0. MX 6.737 1026.056 2506.197 Ο. 0. 2562.957 ٥. ٥. ٥. SM 6.890 2.758 0. ο. ٥. AV 6.737 ٥. Ο. MONTHLY SUMMARY (SEP) 6.737 2.758 ٥. 6.890 ٥. Ο. ٥. MN 2.758 ο. 6.890 ٥. 6.737 ٥. 0. ٥. 992.958 2480.281 2425.352 ٥. 0. SM 2.758 ٥. 6.890 0. ٥. ٥. ΑV 6.737 MONTHLY SUMMARY (OCT) 6.737 -361032. -381443. 6.890 -369208. -189252. 2.758 -179073. MN ٥. 0. 6.890 0. 0. 2.758 ο. 6.737 MX -70887984. -7279922. -34382056. -15824170. 1026.056 -69318032. 2562.957 2506.197 SM -190559. -19570. 2.758 -92425. AV 6.737 -186339. -42538. 6.890 MONTHLY SUMMARY (NOV) 6.737 -190431. 2.758 -179073. -423257. -369208. 6.890 MN -361032. 6.890 -369208. -179073. 0. -49313888. ΜX -361032. -27154988. -129971296. 2480.281 -132914928. 992.958 -64466376 SM 2425.352 2.758 -179073. -361031. -136983. 6.890 -369208. -75431. ΑV 6.737 MONTHLY SUMMARY (DEC) 2.758 -179073. 6.737 -361032. -421671. 6.890 -369208. -200480. MN 2.758 -369208. 6.737 -361032. -38247. 6.890 0. -46492648. -75891464. 2562.957 -137345424. 1026.056 -66615256. -134303680. SM 2506.197 -361031. -204009. 6.890 -369208. -124980. 2.758 -179073. 6.737 ΑV YEARLY SUMMARY 6.737 -425978. 6.890 -369208. -203116. 2.758 -179073. -361032. MN 0. -383723520. 6.890 30176.754 0. -28**8163552**. 2.758 6.737 0. 0. МX -872808064. -853478208. 12080.984 29508.449 -87608. 6.890 -199271. -65791. 2.758 -96651. 6.737 -194858. ΔV

	ENTECH	ENGINE		EZDOE - ELITE SO				12/11/1995	13:32:	3 SDI	RUN
	RADING,	PA		FT. GEORGE G. ME	ADB	EMC	S STUDY			PAGE	1_
H-1 		= HOUR	LY-REPORT								
MMDDHI	AHU-9		AHU-9	AHU-9							
	тот нт	G	SUPPLY	HEATING							
	COIL P	WR	ELECTRIC	CAPACITY							
				BTU/HR							
	(	5)	(49)	(78)							
MONT	ILY SUMMARY	(JAN)									
M	r -236	467.	3.239	-210316.							
		739.	3.239	-210316.							
SI	-61538	616.	1205.071	-78237464.							
	-165			-210316.							
MONT	ILY SUMMARY	(FEB)									
M	-237	144.	3.239	-210316.							
MO	-63	428.	3.239	-210316.							
S	4 -58978	400.	1088.451	-70666088.							
A	7 -175	531.	3.239	-210316.							
	ILY SUMMARY										
	1 -238	1546.	3.239	-210316. -210316.							
		458.									
SI				-78237464.							
A'	-170	775.	3.239	-210316.							
MONT	HLY SUMMARY	(APR)									
			3.239								
		3366.									
			1166.197	-75713672.							
A	V -138	3143.	3.239	-210316.							
	HLY SUMMARY	(MAY)									
			3.239								
	x	٥.	3.239 1205.071	0.							
				0.							
A	V.	0.	3.239	0.							
	HLY SUMMARY			0.							
	N	0.		0.							
	X	0.	3.439								
	M V	0.	1166.197 3.239	0. 0.							
MONT	HLY SUMMAR	v (,1111). v									
		0.		0.							
	X	٥.		0.							
			1205.071	0.							
	v	0.		0.							

REA	ADING, PA		EZDOB - ELIT FT. GEORGE G	DEVELOPMENT	, INC	EMCS	DOR-2.1D STUDY	12/11/1995	13:32:	3 SDI	
			AHU-9	 							 
	TOT HTG	SUPPLY	HRATING								
	COTI. PWR	ELECTRIC	CAPACITY								
	BTU/HR	KW	BTU/HR								
	(5)	(49)	(78)								
MONTHLY	Y SUMMARY (AUG)										
MIN	0.	3.239	0.								
MX	0.	3.239	0.								
SM	0.	1205.071	0.								
AV	0. 0. 0.	3.239	0.								
MONTHLY	Y SUMMARY (SEP)										
MIN	0.	3.239	0.								
MX	0.	3.239	0.								
SM	0.	1166.197 3.239	0.								
AV	0.	3.239	0.								
	Y SUMMARY (OCT)										
MN	-222258. 0.	3.239	-210316.								
SM	-8521327.	1205.071	-40380628.								
VA	-22907.	3.239	-108550.								
	Y SUMMARY (NOV)										
MN	-223642.	3.239	-210316.								
MX	0.	3.239	-210316.								
SM	-30775616.	1166.197									
VA	-85488.	3.239	-210316.								
	Y SUMMARY (DEC)										
	-235450.										
MX											
	-52135216.	1205.071	-78237464.								
AV	-140148.	3.239	-210316.								
YEARLY	SUMMARY										
MN	-238546.	3 239	-210316.								
MX	0. -325208960.	3.239	0.								
SM	-325208960.	14188.732	-497186464.								
AV	-74249.	3.239	-113513.								

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/11/1995 13:32: 3 PI
REPORT- PV-A EQUIPMENT SIZES

EXCENSIVE CONTROL OF THE PROPERTY OF T

DOR-2.1D 12/11/1995 13:32: 3 PDL RUN 1

NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER SIZE INSTD SIZE I 3.800 1 1 HW-BOILER

2.800 2 2 HERM-REC-CHLR

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 PT. GEORGE G. MEADE EMCS STUDY
REPORT - PS-A PLANT ENERGY UTILIZATION SUMMARY WEATHER FILE BALTIMORE, MD

SITE ENBRGY * :													SOURCE
					5	115 5	NERGI						JOURCE
	2	3	4	5	6	7	8	9	10	11	12	13	14
MONTH	TOTAL HEAT LOAD	TOTAL COOLING LOAD	TOTAL ELECTR LOAD	RCVRED ENERGY	WASTED RCVRABL ENERGY	FUEL INPUT COOLING	ELEC INPUT COOLING	FUEL INPUT HEATING	ELEC INPUT HEATING	FUBL INPUT ELECT	TOTAL FUEL INPUT	TOTAL SITE SENERGY	SOURCE
JAN	693.8	0.0	349.0 102.2E	0.0	0.0	0.0	0.0 0.08	982.5	42.4 12.4B	0.0	982.5	1331.5	2030.6
PEB	605.5	0.0	316.3 92.6E	0.0	0.0	0.0	0.0 0.0E	865.0	38.7 11.38	0.0	865.0	1181.3	1814.9
MAR	547.7	0.0	358.1 104.9E	0.0	0.0	0.0	0.0 0.02	792.5	38.4 11.3B	0.0	792.5	1150.6	1868.0
APR	339.1	0.0	325.5 95.3E	0.0	0.0	0.0	0.0	505.4	29.9 8.7E	0.0	505.4	830.9	1482.8
MAY	0.0	202.1	470.2 137.7E	0.0	0.0	0.0	143.1 41.9E	0.0	0.0 0.0E	0.0	0.0	470.2	1411.9
JUN	0.0	431.1	532.7 156.08	0.0	0.0	0.0	219.5 64.38	0.0	0.0 0.08	0.0	0.0	532.7	1599.7
ஶ	0.0	592.6	569.7 166.98	0.0	0.0	0.0	272.8 79.98	0.0	0.0 0.0B	0.0	0.0	569.7	1710.9
AUG	0.0	578.3	589.0 172.58	0.0	0.0	0.0	264.5 77.5E	0.0	0.0 0.0B	0.0	0.0	589.0	1768.9
SEP	0.0	355.8	499.1 146.2E	0.0	0.0	0.0	191.3 56.0B	0.0	0.0 0.0E	0.0	0.0	499.1	1498.9
OCT	128.9	206.6	462.7 135.5E	0.0	0.0	0.0	142.3 41.78	194.1	13.2 3.98	0.0	194.1	656.8	1583.5
NOV	401.0	0.0	317.6 93.0E	0.0	0.0	0.0	0.0 0.0E	580.3	30.5 8.9E	0.0	580.3	897.9	1534.1
DEC	629.0	0.0	345.4 101.2E	0.0	0.0	0.0	0.0	896.0	40.3 11.8E	0.0	896.0	1241.4	1933.2
		******	222722	******		******	*****		******			******	******
	3345.1	2366.6	5135.4 1504.0E	0.0	0.0	0.0	1233.4 361.2E	4815.8	233.3 68.3E	0.0	4815.8		20237.5

NOTE-- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES FOLLOWED BY B ARE IN MWH (THOUSANDS OF KWH)

ENTECH ENGINEERING BZDOR - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/11/1995 13:32: 3 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-B MONTHLY PEAK AND TOTAL ENERGY USE WEATHER FILE- BALTIMORE, MD

UTILITY-ELECTRICITY NATURAL-GAS MO 349.015 982.492 TOTAL (MBTU) 4229.744 1224.857 JAN PEAK (KBTU) 10/7 DY/HR 865.022 TOTAL (MBTU) 316.318 PEAK (KBTU) 1224.857 4217.551 FEB DY/HR 28/17 22/ 7 792.518 TOTAL (MBTU) 358.120 PEAK (KBTU) 1224.857 4177.795 MAR DY/HR 31/17 7/7 505.407 325.471 TOTAL (MBTU) 1224.857 4015.645 PEAK (KBTU) APR DY/HR 29/9 4/7 470.177 TOTAL (MBTU) 1807.657 0.000 PEAK (KBTU) MAY 6/17 31/ 1 532.715 0.000 TOTAL (MBTU) JUN PEAK (KBTU) 2076.801 0.000 DY/HR 10/16 30/1 TOTAL (MBTU) 569.720 0.000 0.000 JUL PEAK (KBTU) 2382.596 25/14 31/ 1 DY/HR 0.000 TOTAL (MBTU) 589.037 2357.162 0.000 AUG PEAK (KBTU) 31/ 1 DY/HR 0.000 499.145 TOTAL (MBTU) PEAK (KBTU) 2047.222 0.000 SEP DY/HR 2/14 30/ 1 TOTAL (MBTU) 462.667 -194.123 PEAK (KBTU) 1791.649 3920.592 oct 24/ 7 DY/HR 13/16 TOTAL (MBTU) 317.631 580.279 4185.006 NOV PEAK (KBTU) 1224.857 30/17 28/ 7 DY/HR 345.407 1224.857 895.957 TOTAL (MBTU) 4197.096 DEC PEAK (KBTU) 5/7 DY/HR ONE YEAR 5135.423 4815.797 4229.744 2382.596 USE/PEAK

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

HEATING LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
HW-BOILER	3345.1	100.0
•		
LOAD SATISFIED	3345.1	100.0
TOTAL LOAD ON PLANT	3345.1	
COOLING LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
HERM-REC-CHLR	2366.6	100.0
	**********	
LOAD SATISFIED	2366.6	100.0
TOTAL LOAD ON PLANT	2366.6	
ELECTRICAL LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
ELECTRICITY	5135.4	100.0
	***********	**************
LOAD SATISFIED	5135.4	100.0
TOTAL LOAD ON PLANT	5135.4	

### SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
HEATING LOADS	3345.1	3345.1	0.000	0.000	0
COOLING LOADS	2366.6	2366.6	0.000	0.000	0
BLECTRICAL LOADS	5135.4	5135.4	0.000	0.000	0

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 12/11/1995 13:32: 3 PDL RUN 1
READING, PA 19603 PT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER FILE- BALTIMORE, MD

вопівмвит	AVG OPER RATIO	MAX LOAD (MBTU)	MON DAY HR	SIZE OPER (MBTU) HRS				
HW-BOILER	0.186	3.309	1 10 7	3.800 4728				
HERM-REC-CHLR	0.192	2.811	8 18 17	2.800 4397				

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/11/1995 13:32: 3 PDL RUN 1 READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY REPORT- PS-I EQUIPMENT LIFE CYCLE COSTS WEATHER FILE- BALTIMORE, MD

E Q U I	PMBNT	T O T A L S	
HW-BOILER		95.7	
III - BOILDIN	NOMINAL SIZE (MBTU)		3.800
	NUMBER INSTALLED		1
	FIRST COST (KS)	86.8	86.8
	ANNUAL COST (K\$)	1.1	1.1
	CYCLICAL COST (K\$)	7.8	7.8
	TOTAL (K\$)		95.7
HERM-REC-CH	LR	107.2	
	NOMINAL SIZE (MBTU)		2.800
	NUMBER INSTALLED		2
	FIRST COST (K\$)		90.5
	ANNUAL COST (K\$)	10.9	10.9
	CYCLICAL COST (K\$)	5.8	
	(K\$)		107.2
EQUIP	MENT TOTAL	202.8	

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 12/11/1995 13:32: 3
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE EMCS MEATHER FILE- BALTIMORE, MD DOR-2.1D 12/11/1995 13:32: 3 PDL RUN 1

ENERGY TYPE IN SITE MBTU -	BLECTRICITY	NATURAL-GAS
ATEGORY OF USE		
SPACE HEAT	172.23	4815.69
SPACE COOL	882.24	0.00
HVAC AUX	1314.31	0.00
DOM HOT WIR	0.00	0.00
AUX SOLAR	0.00	0.00
LIGHTS	1913.30	0.00
VERT TRANS	0.00	0.00
MISC EQUIP	853.30	0.00
TOTAL	5135.39	4815.69

TOTAL SITE ENERGY 9951.22 MBTU 82.1 KBTU/SQFT-YR GROSS-AREA 92.1 KBTU/SQFT-YR NET-AREA TOTAL SOURCE ENERGY 20237.49 MBTU 167.0 KBTU/SQFT-YR GROSS-AREA 167.0 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 54.4 PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.0

NOTE BLECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

HOURLY DATA FILE 2FROM PROG 3

DOB-2.1D 12/11/1995 13:32: 3 PDL RUN 1 BZDOR - ELITE SOFTWARE DEVELOPMENT INC ENTECH ENGINEERING EMCS STUDY FT. GEORGE G. MEADE READING, PA PAGE 1- 1 HRLY-1 - HOURLY-REPORT ....... HERM-REC HERM-REC HW-BOILE HW-BOILE HW-BOILE HERM-REC MMDDHH -CHLR -CHLR R R -CHLR LOAD FUEL BLECTRIC CONDENSE BLECTRIC LOAD FAN BLEC USE USE BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR ---(3) ----( 1) ----(18) ----(1) ----(4) ----(3) MONTHLY SUMMARY (JAN) 2321. 43099. ٥. 0. ٥. 26374. MN 3309360. 4229744. 83600. MX Ο. 0. ٥. 693849408. 982494848. 32771800. 0. ٥. SM 0. 0. 932593. 1320558. 44048. ٥. ΑV MONTHLY SUMMARY (PEB) 26374. 43099. 2321. Ο. MN 0. 4217551. ٥. 3298001. 83600. 0. ΜX 0. 865023616. 29995112. 605536448. 0. ٥. SM 901096. 1287238. 44636. ٥. ۸V Ο. ٥. MONTHLY SUMMARY (MAR) 2321. 26374. 43099. ٥. ٥. ٥. 3261009. 4177795. 83600. ٥. Ο. MX 0. 0. 547661696. 792519424. 28837508. 0. SM 1065214. 38760. AV 0. ٥. 736104. MONTHLY SUMMARY (APR) 2321. 26374. 43099. 0. 0. MN 0. 3110817. 4015645. 83600. 0. ٥. ο. 339102592. 505405984. 20570868. Ο. SM Ο. ٥. 470976. 701953. 28571. 0. ΑV MONTHLY SUMMARY (MAY) 127958. 14331. ٥. ٥. ٥. 55877. MN ٥. Ο. 78400. 0. ΜX 599364. 1683285. 18262276. SM 83580016. 202139328. ο. Ο. 0. ΑV 112339. MONTHLY SUMMARY (JUN) 127958. 14331. ٥. ٥. ٥. 55877. MN 868507. 2585964. 78400. ٥. 0. ٥. ΜX Ο. 26314550. 161907904. 431146112. 0. 0. 598814. ΑV 224872. MONTHLY SUMMARY (JUL) 127958. 14331. ٥. ο. MN 55877. ٥. ΜX 2770856. 156800. ٥. ٥. 32016658. 592561472. 213295568. 796454. ο. ΑV 286688.

DOE-2.1D 12/11/1995 13:32: 3 PDL RUN 1 EZDOE - ELITE SOFTWARE DEVELOPMENT INC ENTECH ENGINEERING EMCS STUDY PT. GEORGE G. MEADE PA READING. PAGE 2- 1 HRLY-1 - HOURLY-REPORT \_\_\_\_\_\_ HW-BOILE HERM-REC HERM-REC HW-BOILE HW-BOILE HERM-REC -CHLR -CHLR -CHLR LOAD FUEL ELECTRIC CONDENSE BLECTRIC LOAD USB USE FAN BLEC USE BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR BTU/HR ---(4) ----(3) ----( 1) ----(1) ----(3) ----(18) MONTHLY SUMMARY (AUG) 0. 127958. 14331. ο. Ο. 55877. MN ٥. ٥. 1148869. 2810543. 156800. ٥. ΜX 0. 30373192. 578320256. 205021616. 40824. 0. Ο. 0. 777312. AV 275567. MONTHLY SUMMARY (SEP) ٥. Ο. 14331. 55877. 127958. 78400. ٥. ٥. ٥. 2553886. ΜX 838929. ٥. ٥. 355776832. 23564024. 0. 133697512. SM ٥. ٥. ΑV 185691. 494135. 32728. ٥. MONTHLY SUMMARY (OCT) ٥. Ο. 0. ο. ο. MN 0. 3920592. 83600. 78400. 3023277. 583356. 1666185. ΜX 128889480. 194123216. 8207673. 18969730. SM 84740656. 206618640. 277713. 173239. 260918. 11032. ΑV 113899. MONTHLY SUMMARY (NOV) 26374. 43099. 2321. 0. 0. Ο. MN 83600. 4185006. 0. Ο. 3267714. MX 21172644. 401033536. 580278656. SM Ο. Ο. 805943. 29406. 0. ΑV 0. ٥. MONTHLY SUMMARY (DEC) 26374. 43099. 2321. 0. ο. 0. 83600. 0. 3278960. 4197096. MX ٥. 895958976. 30678228. SM ٥. ٥. 0. 628994368. 845423. 41234. Ο. ΑV Ο. Ο. YEARLY SUMMARY 0. ο. ٥. ο. 156800. 3309360. 4229744. 83600 2810543. 1174303. MX 172233824. 3345067520. 4815804928. 2366562560. 149500432. 882243328. SM 549749. 381857. 100713. 270156. 17066.

## FT. MEADE, MARYLAND

Building: 4551		Square feet 13,614	
Exterior Wall		Exterior Roof	
Components	R-Value	Components	R-Value
Outside Surface	0.17	Outside Surface	0.17
Brick	0.44	Slate Shingles	0.05
Concrete Block	1.72	Wood Deck	0.93
Air Space	1.10	Air Space	1.10
Plaster	0.56	Plaster	0.56
Inside Surface	0.68	Inside Surface	0.61
Total R-Value	4.67	Total R-Value	3.42
Total U-Value	0.21	Total U-Value	0.29
Calculated Total Area		Window and Door	
No. of Floors	2		U-Value
Avg. Floor to Floor Height	12	Window Single Pane W/Storm	0.60
No. of Basement Levels	1	Window Single Pane Wo/Storm	
Gross Floor Area	13614	Window Double Pane	
Roof Area	5720	Skylight	
Estimated Infiltration (cfm)	5600	Glass Block	
Gross Wall Area	8215	Other	
Door Area	130	Door Type 1	0.50
Gross Window Area	825	Door Type 2	
Other		Door Type 3	
Net Wall Area	7260		

 $U_0A_0 = (7260*0.21) + (5720*0.11) + (825*0.6) + (130*0.5) = 2713.8$ 

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

Page 1 of 1

BUILDING NO. 4551

AHU-1	FOLIPMENT				SYSTEM NUMBER	NUMBER			
AHU-1   AHU-2   AHU-4   Boiler   AHU-3   Fan Coils   Chiller		-	2	3	4	5	9	7	8
1	Equipment Name	AHU-1	AHU-2	AHU-4	Boiler	AHN-3	Fan Coils	Chiller	
3   3   3   3   3   3   3   3   3   3	COOLING:				4		,	•	
Meet 1st Fire   East 1st Fire   Center 2nd Fire   Conferm   Bernt 1st, 2nd   1450   500   5300   5300   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5200   5	Type of Cooling	ო	က:	დ.		ς-	ო.	m -	1
Mest 1st Fir   East 1st Fir   Center 2nd Fir   Conf Rm   Bsm, 1st, 2nd   1450   2300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300   6300	Air Side	7	2	2		<del></del>	-		:
1450   1450   2800   900   6300   900   6300   900   6300   900   6300   900   6300   900   6300   900   6300   900   900   6300   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900   900	Location in Building	West 1st Flr	East 1st Flr	Center 2nd Flr		Conf Rm	Bsmt, 1st, 2nd		
2675 2170 2735 1200 3  11200 3  11200 3  11200 3  11200 3  11200 3  11200 3  11200 3  11200 3  11200 3  11200 3  11200 3  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200 6  1200	Area Sq. Feet	1450	1450	2900		006	6300		
1	Supply CFM	2675	2170	2735	-	1200			
e enser Fan HP pp HP 3  Py HP 3  Type of Cooling  DX  (3) Steam to Hol Water Converter (6) Contrail Plant Supplied (1) Steam to Hol Water Converter (6) Contrail Volume Reheat (1) Contrail Plant Steam (2) Contrail Volume Reheat (3) Steam to Hol Water (4) Contrail Volume Reheat (5) Contrail Volume Reheat (6) Contrail Plant Steam (6) Electric (6) Heating and Vomitating and Volume Reheat (7) Contrail Plant Steam (6) Electric (6) Heating and Vomitating and	Supply Fan HP	-	-	3/4		3/4	ო		
Meek         1         1         1         2         2         2         2         2         3         3         2         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3	O.A. CFM or %	20%	20%	20%		20%	%0		
1	Return CFM								
1	Return Fan HP							1	
1	Chiller Tonnage							20	
Type of Cooling         (1) Boiler Hot Water         (3) Steam to Hot Water Converter         (4) Nater Cooled Chiller         (5) Central Plant Supplied         (7) Boiler Hot Water         (4) Furnace           (5) Central Plant Supplied         (7) Boiler Hot Water         (4) Furnace           (5) Central Plant Supplied         (7) Boiler Hot Water         (4) Furnace           (5) Central Plant Supplied         (1) Natural Gas         (4) Oil           (6) Other         (1) Natural Gas         (4) Oil           (5) Constant Volume Reheat         (2) Central Plant Steam         (5) Electric           (6) Heating and Ventilating         (3) Central Plant Hot Water         (5) Electric	Tower or Condenser Fan HP								
Aveek         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1 <td>Condenser Pump HP</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td>	Condenser Pump HP								1
Week         Type of Cooling         Type of Heating           Type of Cooling         Type of Heating           (4) Water Cooled Chiller (5) Central Plant Supplied (5) Central Plant Supplied (5) Central Plant Supplied (2) Boiler Steam (6) Other         (2) Boiler Hot Water Converter (2) Boiler Steam (6) Other (3) Steam to Hot Water Converter (4) Natural Gas (7) Natural Gas (4) Oil (5) Central Plant Steam (6) Heating and Ventilating (2) Central Plant Steam (5) Electric (6) Heating and Ventilating (3) Central Plant Hot Water (6) Heating and Ventilating (3) Central Plant Hot Water (6) Heating and Ventilating (3) Central Plant Hot Water (6) Heating and Ventilating (6) Central Plant Hot Water (7) Oil (7) Central Plant Hot Water (7) Oil (7) Central Plant Hot Water (7) Central Plant Hot Water (7) Oil (7) Central Plant Hot Water (7) Central Plant (7) Central P	Chilled Water Pump HP							2	
HP	HEATING:								
HP   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356   1697/1356	Type of Heating				<del>-</del>				
HP   P   P   P   P   P   P   P   P   P	Source				~				-
HP   P   P   P   P   P   P   P   P   P	МВТИН				1697/1356				
Type of Cooling	Hot Water Pump HP			:	2				÷
Type of Cooling	Condensate Pump HP								
Type of Cooling   Type of Cooling   Type of Heating	ADDITIONAL:			:					
Type of Cooling	Aux. HP Cooling								
Type of Cooling  (4) Water Cooled Chiller (5) Central Plant Supplied (6) Other  Air Side (1) Natural Gas (2) Constant Volume Reheat (3) Steam to Hot Water Converter (4) VAV w/ Reheat (5) Constant Volume Reheat (6) Heating and Ventilating (7) Central Plant Steam (8) Central Plant Hot Water	Aux. HP Heating								
Type of Cooling   Type of Cooling   Type of Heating	Operating Schedule Hrs. Week								
Type of Cooling  (4) Water Cooled Chiller  (5) Central Plant Supplied  (6) Other  Air Side  (1) Natural Gas  (2) Central Plant Source  (3) Steam to Hot Water Converter  (4) VAV w/ Reheat  (5) Constant Volume Reheat  (6) Heating and Ventilating  (7) Central Plant Steam  (8) Central Plant Hot Water			<del></del>						1
(4) Water Cooled Chiller  (5) Central Plant Supplied (6) Other  Air Side (4) VAV w/ Reheat (5) Constant Volume Reheat (6) Heating and Ventilating (1) Central Plant Hot Water (2) Central Plant Hot Water	Type	of Cooling					Type of Heatin	ō	
DX (5) Central Plant Supplied (2) Boiler Steam (6) Other  Air Side (4) VAV w/ Reheat (5) Constant Volume Reheat (6) Heating and Ventilating (1) Natural Gas (2) Central Plant Steam (3) Central Plant Hot Water	!	(4) Water Coole	ed Chiller		(1) Boiler Hot W		e L	(4) Furnace	
Chiller         (6) Other         Air Side         Heating Source           e         (4) VAV w/ Reheat         (1) Natural Gas           (5) Constant Volume Reheat         (2) Central Plant Steam           (6) Heating and Ventilating         (3) Central Plant Hot Water	(2) Water Cooled DX	(5) Central Plar			(2) Boiler Stearr	-			
Air Side Heating Source  (4) VAV w/ Reheat (2) Central Gas  (5) Constant Volume Reheat (3) Central Plant Hot Water  (6) Heating and Ventilating	(3) Air Cooled Chiller	(6) Other			(3) Steam to Ho	t Water Conver	rter		
e (4) VAV w/ Reheat (1) Natural Gas (5) Constant Volume Reheat (2) Central Plant Steam (6) Heating and Ventilating (3) Central Plant Hot Water		Vir Side					Heating Sourc	e	
(5) Constant Volume Reheat (2) Central Plant Steam (6) Heating and Ventilating	(1) Single Zone	(4) VAV w/ Reh	ieat		(1) Natural Gas			(4) Oil	
(6) Heating and Ventilating	(2) Multi-Zone	(5) Constant Vo	olume Reheat		(2) Central Plan	t Steam		(5) Electric	
	(3) VAV	(6) Heating and	l Ventilating		(3) Central Plan	t Hot Water			

EMCS Annual Energy Savings Summary Report

/\_\_\_\_\_\_

Base: FTMEADE Building: 4551 Case: 1

Description: GARRISON HDQTRS

Fuel Type: Natural gas (methane) Heating Value: 1,031 Btu/cf 

Caution

The ESA program makes no attempt to exclude incompatible strategies. It is the user's responsibility to select all appropriate strategies.

Annual Energy Savings Table for Multi-zone AHU

Description: AHU-1 WEST 1ST FLOOR MULTIZONE MBtu/yr kWh/yr kW mh/yr Strategy 0.000 0 Demand Limiting Day/Night Setback 0.4 0 41.826 8.668 22.357 104 0 0.0 0.0 Vent/Recirculation 1,088 0.0 Hot/Cold Deck Reset 0.000 0.0 Run Time Recording 0.000 0.0 Safety Alarm Subtotals 72.851 1,192 0.4 Heating Value / 1,031 Btu/cf 1,192 kWh/yr 0.4 4 70,660 Totals kW mh/yr

cf /yr \_\_\_\_\_\_\_ Annual Energy Savings Table for Multi-zone AHU

Description: AHU-2 EAST 1ST	FLOOR MULT	CIZONE		
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Demand Limiting Day/Night Setback Vent/Recirculation Hot/Cold Deck Reset Run Time Recording Safety Alarm	0.000 41.826 7.032 18.136 0.000 0.000	0 104 0 883 0 0	0.1 0.0 0.0 0.0 0.0	0 0 0 0 2 2
Subtotals Heating Value /	66.994 1,031	987 Btu/cf	0.1	4
Totals	64,979 cf /yr	987 kWh/yr	0.1 kW	4 mh/yr

Annual Energy Savings Table for Multi-zone AHU

Description: AHU-4 2ND FLOOP	R CENTER MU	JLTIZONE		
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Demand Limiting Day/Night Setback Vent/Recirculation Hot/Cold Deck Reset Run Time Recording Safety Alarm	0.000 83.652 8.863 22.858 0.000	0 207 0 1,113 0	0.1 0.0 0.0 0.0 0.0	0 0 0 0 0 2 2
Subtotals Heating Value /	115.373 1,031	1,320 Btu/cf	0.1	4
Totals	111,904 cf /yr	1,320 kWh/yr	0.1 kW	4 mh/yr

Annual Energy Savings Table for Single Zone DX-A/C

			=========	======
Description: AHU-3 Conferen	ce Room Hea	it Pump		
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Demand Limiting Day/Night Setback Vent/Recirculation Run Time Recording Safety Alarm	0.000 20.769 3.111 0.000 0.000	0 96 0 0	0.1 0.0 0.0 0.0 0.0	0 0 0 2 2
Subtotals Heating Value /	23.880 1,031	96 Btu/cf	0.1	4
Totals	23,162 cf /yr	96 kWh/yr	0.1 kW	4 mh/yr

Annual Energy Savings Table for Two Pipe Fan Coil Unit

Description: FAN COIL UNITS				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Day/Night Setback Run Time Recording Safety Alarm	181.727 0.000 0.000	450 0 0	0.0 0.0 0.0	0 2 2
Subtotals Heating Value /	181.727	450 Btu/cf	0.0	4
Totals	176,263 cf /yr	450 kWh/yr	0.0 kW	4 mh/yr

Annual Energy Savings Table for Hot Water Boiler

Strategy	MBtu/yr	kWh/yr	k₩ 	mh/yr
Hot Water OA Reset	254.550	0	0.0	0
Run Time Recording	0.000	0	0.0	2
Safety Alarm	0.000	0	0.0	2
Subtotals Heating Value /	254.550 1,031	0 Btu/cf	0.0	4
Totals	246,896	0	0.0	4
	cf /yr	kWh/yr	kW	mh/yr

Annual Energy Savings Table for Air Cooled Chiller

Description: CHILLER				
======================================	MBtu/yr	kWh/yr	kW	mh/yr
Scheduled Start/Stop Chiller Water Reset Run Time Recording Safety Alarm	0.000	392	0.0	0
	0.000	2,088	0.0	0
	0.000	0	0.0	2
	0.000	0	0.0	2
Totals	0.000	2,480	0.0	4
	MBtu/yr	kWh/yr	kW	mh/yr

Annual Energy Savings Table for Lighting Control

Description: Lighting				
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Lighting Control	0.000	37,440	0.0	0
Totals	0.000 MBtu/yr	37,440 kWh/yr	0.0 kW	0 mh/yr

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## EMCS Annual Energy Savings for Building 4551

/=====================================	Value	Units
Natural gas (methane) Electrical Energy	693,864 43,965	cf /yr kWh/yr
Electrical Demand Reduction Labor Savings	0.8 28	kW mh/yr

# FT. MEADE, MARYLAND

Building:

4552

Square	feet	67,824
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Exterior Wall	
Components	R-Value
Outside Surface	0.17
Brick	0.44
Air Space	1.10
Concrete Block	1.72
Plaster	0.56
Inside Surface	0.68
Total R-Value	4.67
Total U-Value	0.21

Exterior Roof	
Components	R-Value
Outside Surface	0.17
Slate	0.33
Wood Deck	0.93
2" Insulation	12.00
Plaster Clg	0.56
Inside Surface	0.61
Total R-Value	14.60
Total U-Value	0.07

Calculated Total Area	
No. of Floors	4
Avg. Floor to Floor Height	12
No. of Basement Levels	1
Gross Floor Area	67824
Roof Area	13600
Estimated Infiltration (cfm)	8200
Gross Wall Area	29020
Door Area	100
Gross Window Area	900
Other	
Net Wall Area	28020

Window and Door	
	U-Value
Window Single Pane W/Storm	0.60
Window Single Pane Wo/Storm	
Window Double Pane	
Skylight	
Glass Block	
Other	
Door Type 1	0.50
Door Type 2	
Door Type 3	

# FT. MEADE, MARYLAND EQUIPMENT SCHEDULE

BUILDING NO. 4552

Page 1 of 1

1	TNEMPHIL				SYSTEM	SYSTEM NUMBER			
AC-1   AC-2   AC-2   AC-4   AC-26   AC-27     1		-	2	က	4	5	9	7	ဆ
1	Equipment Name	AC-1	AC-2	AC-3	AC-4	AC-25	AC-26	AC-27	Boiler
1	COOLING:								
12   12   12   13   14   15   15   14   15   15   15   15	Type of Cooling	1	1	-	-	1	-	-	
12 BSMT   14F Fr   2nd Fr   14 BSMT   14 Fr   14 BSMT   15 Fr   15 BSMT   15	Air Side	_	2	2	2	-	-	2	
ASO	Location in Building	1/2 BSMT	1st Flr	2nd Flr	3rd Flr	1/2 BSMT	1st Fir North	4th Fir	
Mater   Mate	Area Sq. Feet	4500	11500	13600	13600	9100	2100	10000	
10	Supply CFM	4520	13510	16615	18630	10000	2300	11000	
State   Stat	Supply Fan HP	2	10	15	15	10	1 1/2	10	
15   30   40   40   15   30   30	O.A. CFM or %	20%	20%	20%	20%	20%	20%	20%	
15   30   40   15   30   30	Return CFM								
15   30   40   15   30   30   30   30   30   30   30   3	Return Fan HP								
National Cooling	Chiller Tonnage	15	30	40	40	15		30	
Type of Cooling	Tower or Condenser Fan HP	2/3	3	5	ည	2/3		က	
Type of Cooling	Condenser Pump HP								
Type of Cooling	Chilled Water Pump HP								
HP   HP   HP   HP   HP   HP   HP   HP	HEATING:								Two Total
HP	Type of Heating								2
HP	Source								-
HP	MBTUH								2520/2052
Light His Above k	Hot Water Pump HP								
Type of Cooling	Condensate Pump HP								ν-
Light Hrs. Week	ADDITIONAL:								
Light Hrs. Week	Aux. HP Cooling								
Type of Cooling         Type of Heatin           (4) Water Cooled Chilter         (1) Boiler Hot Water           (5) Central Plant Supplied         (2) Boiler Steam           (6) Other         (3) Steam to Hot Water Converter           Air Side         Heating Sourc           (4) VAV w/ Reheat         (1) Natural Gas           (5) Constant Volume Reheat         (2) Central Plant Steam           (6) Heating and Ventilating         (3) Central Plant Hot Water	Aux. HP Heating								
Type of Cooling         Type of Cooling         Type of Heatin           DX         (4) Water Cooled Chiller         (1) Boiler Hot Water           Led DX         (5) Central Plant Supplied         (2) Boiler Steam           Chiller         (3) Steam to Hot Water Converter           Air Side         Heating Sourc           (4) VAV w/ Reheat         (1) Natural Gas           (5) Constant Volume Reheat         (2) Central Plant Steam           (6) Heating and Ventilating         (3) Central Plant Hot Water	Operating Schedule Hrs. Week								
Type of Cooling         Type of Heatin           DX         (4) Water Cooled Chiller         (1) Boiler Hot Water           led DX         (5) Central Plant Supplied         (2) Boiler Steam           Chiller         (3) Steam to Hot Water Converter           Air Side         Heating Sourc           e         (4) VAV w/ Reheat         (1) Natural Gas           (5) Constant Volume Reheat         (2) Central Plant Steam           (6) Heating and Ventilating         (3) Central Plant Hot Water									
(1) Boiler Hot Water Cooled Chiller	Type	of Cooling					Type of Heatin		
Chiller   Chil		(4) Water Coole	d Chiller		(1) Boiler Hot \	ater		(4) Furnace	=
Chiller         (6) Other         Heating Source           Air Side         Heating Source           e         (4) VAV w/ Reheat         (1) Natural Gas           (5) Constant Volume Reheat         (2) Central Plant Steam           (6) Heating and Ventilating         (3) Central Plant Hot Water	(2) Water Cooled DX	(5) Central Plar	t Supplied		(2) Boiler Stea	٤			
Air Side Heating Source  (4) VAV w/ Reheat (1) Natural Gas (5) Constant Volume Reheat (2) Central Plant Steam (6) Heating and Ventilating (3) Central Plant Hot Water	(3) Air Cooled Chiller	(6) Other			(3) Steam to H	ot Water Conver	ter		
e (4) VAV w/ Reheat (1) Natural Gas (5) Constant Volume Reheat (2) Central Plant Steam (6) Heating and Ventilating (3) Central Plant Hot Water		Air Side					<b>-leating Sourc</b>	e	
(5) Constant Volume Reheat (2) Central Plant Steam (6) Heating and Ventilating (3) Central Plant Hot Water	(1) Single Zone	(4) VAV w/ Reh	eat		(1) Natural Gar	(0		(4) Oil	
(6) Heating and Ventilating	(2) Multi-Zone	(5) Constant Vo	lume Reheat		(2) Central Pla	nt Steam		(5) Electric	
	(3) VAV	(6) Heating and	Ventilating		(3) Central Pla	nt Hot Water			

EMCS Annual Energy Savings Summary Report

Base: FTMEADE
Building: 4552
Case: 1
Description: ADMIN

Fuel Type: Natural gas (methane)

## Caution

Annual Energy Savings Table for Multi-zone DX-A/C

Description: MULTI-ZONE UNI	TS (4)			
Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Demand Limiting Hot/Cold Deck Reset	0.000 454.007	0 28,734	7.5 0.0	0
Subtotals Heating Value /	454.007 1,031	28,734 Btu/cf	7.5	0
Totals	440,356 cf /yr	28,734 kWh/yr	7.5 kW	0 mh/yr

Annual Energy Savings Table for Lighting Control

Strategy	MBtu/yr	kWh/yr	kW	mh/yr
Lighting Control	0.000	112,320	0.0	0
Totals	0.000 MBtu/yr	112,320 kWh/yr	0.0 kW	0 mh/yı

7 Jun 1996 11:02:36

4552.SM1

EMCS Annual Energy Savings for Building 4552

Description	Value	Units
Natural gas (methane)  Electrical Energy  Electrical Demand Reduction  Labor Savings	440,356 141,054 7.5 0	cf /yr kWh/yr kW mh/yr
\ <sup>'</sup> ====================================		

## UMCS FEASIBILITY STUDY FORT MEADE BUILDING 4552 - ADMINISTRATIVE DOE ENERGY SAVINGS SUMMARY

	Space	Snace Heat	Space Cool	ace Cool   HVAC Aux	Lights	Misc Equip	TOTAL	FAL	TOTAL	<b>TAL</b>
	Flectricity	Flectricity Natural Gas	Electricity	Electricity		Electricity	Electricity	Electricity Natural Gas Electricity Natural Gas	Electricity	Natural Gas
	mmBtu	mmBtu	mmBtu	mmBtu	mmBtu	mmBtu	mmBtu	mmBtu	Kwh	MCF
Existing	151.6	<u> </u>	616.4	1,281.5	1,721.8	652.3	4,423.6	2,839.0	1,296,097	2,753.6
New w/Night Setback	85.3	1,927.1	573.9	597.4	1,721.8	652.3	3,630.7	1,927.1	1,063,786	1,869.2
Night Setback Savings							792.9	911.9	232,312	884.4
New w/Night Setback	80.6	1,746.3	571.8	584.5	1,721.8	652.3	3,610.9	1,746.3	1,057,993	1,693.8
and Vent/Recirc							19.8	180.8	5,793	175.4
New w/Night Setback &	73.1	1,501.6	520.8	583.6	1,721.8	652.3	3,551.6	1,501.6	1,040,607	1,456.4
Vent/Recirc & Economizer Economizer Savings							59.3	244.7	17,386	237.4

G:PROJECTSW130.07/SSW552/DOESUM:WK4

ENTECH ENGINEERING BZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 6/5/1996 15:10:30 SDL RUN 1
PRADING. DA 19603 PT GROEGE G MEADE EMCS STUDY

RE	ADING, PA	19603	FT. GEORGE	G. MEADE		EMCS STUDY			PAGE 1-
-1	= HOU	RLY-REPORT							PMGB 1-
DDHH.	AHU-1	AHU-1	AHU-1	AHU-1	AHU-1	AHU-2	AHU-2	AHU-2	
	TOT HTG	SUPPLY	HEATING	COOLING	COOLING	TOT HTG	SUPPLY	HEATING	
	COIL PWR	RLECTRIC	CAPACITY	ELECTRIC	CAPACITY	COIL PWR	BLECTRIC	CAPACITY	
	BTU/HR	KW	BTU/HR	KM	BTU/HR	BTU/HR	KM	BTU/HR	
	(5)	(49)	(78)	(47)	(70)	(5)	(49)	(78)	
ONTHL	Y SUMMARY (JAN)								
MN	-49297.	2.424	-129883.	0.000	149125.	-49297.	2.424	-129883	
MX	-16891.	2.424	-129883.	0.000	152850.		2.424	-129883	
SM	-28554714.	1803.240	-96633176.	0.000	110958736.	-28554714.	1803.240	-96633176	
AV	-38380.	2.424	-129883.	0.000	149138.	-38380.	2.424	-129883	•
MONTHL	Y SUMMARY (FEB)								
MIN	-54017.	2.424	-129883.	0.000	149125.		2.424		
MX	-20916.	2.424	-129883.	0.000	152493.		2.424	-129883	
SM	-28747618.	1628.733	-87281576.	0.000	100237568.		1628.733	-87281576	
AV	-42779.	2.424	-129883.	0.000	149163.	-42779.	2.424	-129883	
ONTHL	Y SUMMARY (MAR)	)							
MIN	-53693.	2.424	-129883.	0.000	145432.	-53693.	2.424		
MX	-19663.	2.424	-129883.	0.000	161719.		2.424		
SM	-31042922.	1803.240	-96633176.	0.000	111048552.		1803.240		
ΑV	-41724.	2.424	-129883.	0.000	149259.	-41724.	2.424	-129883	•
MONTHI	Y SUMMARY (APR						2 424	-129883	
MIN	-51630.	2.424	-129883.	0.000	141285.	-51630.	2.424 2.424	-129883	
MX	-14505.	2.424	-129883.	0.000	163580.	-14505.			
SM	-28360426.	1,745.071	-93515976.	0.000	107746936.	-28360426.	1745.071	-93515976 -129883	
AV	-39389.	2.424	-129883.	0.000	149649.	-39389.	2.424	-129883	•
	LY SUMMARY (MAY		_		126074	0.	2.424	0	
MN	0.	2.424	0.	0.000	136874. 166031.	0.	2.424	0	
MX	0.	2.424	0.	0.000		0.	1803.240	0	-
SM	0.	1803.240	0.	0.000	111583248. 149977.	0.	2.424	0	-
AV	٥.	2.424	0.	0.000	1499//.	0.	2,324	·	•
	LY SUMMARY (JUN		0.	0.000	134840.	٥.	2.424	0	_
MN		2.424		4.136	181392.	0.	2,424	ō	-
MX		2.424	0. 0.	131.521	111569680.	0.		0	
SM AV		1745.071 2.424	0.	0.183	154958.	0.	2.424	ō	
MOVE THE	LY SUMMARY (JUL	,							
MN		2.424	0.	0.000	134542.	0.	2.424	0	
MX MX		2.424	0.	5.260	184054.	0.		0	
M.X. SM		1803.240	0.	738.248	117411136.	0.		0	
	υ.	2.424	٠.	0.992	157811.	0.	2.424	0	

ENTECH ENGINEERING EMCS STUDY FT, GEORGE G. MEADE READING, PA 19603 - HOURLY-REPORT PAGE 2- 1 H-1 AHU-1 AHU-2 AHU-2 AHU-2 AHU-1 AHU-1 AHU-1 AHU-1 TOT HTG SUPPLY HEATING COOLING COOLING TOT HTG SUPPLY HEATING ELECTRIC CAPACITY BLECTRIC CAPACITY COIL PWR BLECTRIC CAPACITY COIL PWR BTC/HR BTU/HR BTU/HR KW BTU/HR KW BTU/HR KW ---(78) ---- (47) --- (70) ---(5) ---- (49) ---- (78) ---(5) ---- (49) MONTHLY SUMMARY (AUG) 136060. 2.424 0.000 ٥. ٥. ٥. MN ٥. 2.424 6.204 179548. ٥. 2.424 ٥. 2.424 ΜX ٥. 1803.240 ٥. 1231.659 113796704 ٥. 1803.240 ٥. SM Ο. 152953. 1.655 0. 2.424 0. A۷ ٥. 2.424 ٥. MONTHLY SUMMARY (SEP) 136084. 2.424 2.424 ٥. 0.000 0. ٥. MN ٥. MX ٥. 2.424 Ο. 6.284 178913. ٥. 2.424 ٥. α. 799.156 109352464. 0. 1745.071 ٥. 1745.071 SM Ο. 2.424 ٥. 1.110 151878. ٥. 2.424 ٥. 0. ΑV MONTHLY SUMMARY (OCT) 141099. -61481. 2.424 -129883. -129883. 0.000 2.424 MN -61481. 5.385 168743. 0. 2.424 0. 2.424 Ο. MX ٥. -10422434. -49875180. -10422434. 1803.240 -49875180. 1184.772 111937384. 1803.240 1.592 150453. -14009. 2.424 -67037. A۷ -14009. 2.424 -67037. MONTHLY SUMMARY (NOV) -32091. -129883. -32091. 0.000 149125. 2.424 2.424 -129883. 0.000 179606. -5. 2.424 -129883. -129883. MX -5. 2.424 -14635556. 0.000 108714776. -14635556. 1745.071 -93515976. 1745.071 SM 2.424 -129883. 0.000 150993. -20327. 2.424 -129883. ΑV MONTHLY SUMMARY (DEC) -40796. 2.424 -129883. 0.000 149125. -40796. 2.424 -129883. 158054. -5946. 2.424 -129883. 0.000 -129883. ΜX -5946. 2.424 0.000 111067584. -22490088. 1803.240 -96633176. -96633176. 1803.240 SM -22490088. ΑV -129883. 0.000 149284. -30229. 2.424 -129883. YEARLY SUMMARY -129883. -61481. 2.424 -129883. 0.000 134542. -61481. 2.424 MIN MX, ٥. 2.424 ٥. 6.284 184054. ٥. 2.424 0. -164253760. -614088192. 4085.357 1325424640. -164253760. 21231.699 -614088192. 21231.699 SM

0.466

151304.

-18750.

2.424

-70101.

2.424

ΑV

-18750.

-70101.

RZDOR - BLITE SOFTWARE DEVELOPMENT INC

DOE-2.1D 6/ 5/1996 15:10:30 SDL RUN 1

EZDOB - BLITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/5/1996 15:10:30 SDL RUN 1 ENTECH ENGINEERING RMCS STUDY PT. GEORGE G. MEADE PA 19603 - HOURLY-REPORT PAGR 1- 2 H-1 --AHU-3 AHU-3 AHU-3 AHU-4 AHU-3 метронн ант-2 AHU-2 F-UHA COOLING COOLING TOT HTG COOLING TOT HTG SUPPLY HRATING COOLING CAPACITY RLECTRIC CAPACITY ELECTRIC CAPACITY COIL PWR RLECTRIC KN BTU/HR BTU/HR KM BTU/HR BTU/HR KW BTU/HR ---- (47) ---- (70) ----(5) ---- (47) ---- (70) ----(5) ----(49) ----(78) MONTHLY SUMMARY (JAN) 3.897 0.000 257595. -67378. 149125. -69297. -208820. 0.000 MN 0.000 525633. -6. -25844828. 3.897 -208820. 0.000 152850. MX 2899.156 0.000 195540880. -24917418. -155361760. 0.000 110958736. 3.897 -208820. 0.000 262824. -33491. 149138. -34738. ΑV 0.000 MONTHLY SUMMARY (FEB) 3.897 0.000 -74729. -208820. 0.000 257595 -71793. 149125. MN 0.000 0.000 152493. -3. -22257012. 3.897 -208820. 358614. -3. MX -21468978. 0.000 175870848. -140326768. 2618.592 0.000 100237568. -31948. -208820. 0.000 261713. -33121. 3.897 149163. ΑV 0.000 MONTHLY SUMMARY (MAR) 0.000 3.897 -208820. 0.000 257595. -60786. -62854. MN 145432. 415220. 161719. ٥. 3.897 -208820. 0.000 ٥. 0.000 MX 196881424. -14665497. -15229221. 2899.156 -155361760. 0.000 111048552. SM 0.000 264626 -19712. 3.897 -20469. AV 0.000 149259. MONTHLY SUMMARY (APR) 3.897 256309. 0.000 -49875. -208820. 0.000 -48438. 141285. 3.897 -208820. 0.000 408591. 0. 163580. 0.000 MX 0.000 194638896. -7219938. 2805.635 -150350096. 107746936. SM 3.897 -208820. 0.000 270332. -9743. -10028. ΑV 0.000 149649. MONTHLY SUMMARY (MAY) 0.000 3.897 0.000 236434. ٥. 136874. Ο. MN ٥. 390841. 166031. ٥. 3.897 ٥. 12.231 0.000 MX 197299200. 2899.156 ٥. 0.000 111583248. ٥. ٥. 2.063 265187. ٥. 0. AV 0.000 149977. MONTHLY SUMMARY (JUN) 0.000 0. 3.897 ٥. 0.000 234673 ٥. 134840. MN 348417. ٥. 181392. 0. 3.897 ٥. 18.597 4.136 MX 189826640. 2805.635 131.521 111569680. 0. 3.897 ٥. 5.231 263648 ٥. 154958. ٥. 0.183 ΑV MONTHLY SUMMARY (JUL) 3.897 0. 0.000 240124. 0. 134542. 0.000 5.260 MN 18.404 360578. 3.897 184054. α. MX 2899.156 4829.380 194427312. 117411136. ٥. SM 738.248 261327. 0.992 157811. 3.897 ο. 6.491 0. ΑV

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/5/1996 15:10:30 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY

H-1 = HOURLY-REPORT PAGE 2- 2

	DING, PA	19603 RLY-RBPORT	FT. GEORGE	G. MEADE		BACS STUDI			PAGE 2- 2
H-1	- HOU!								
	AHU-2	AHU-2	AHU-3	AHU-3	AHU-3	AHU-3	AHU-3	AHU-4	
	COOLING	COOLING	TOT HTG	SUPPLY	HRATING	COOLING	COOLING	TOT HTG	
	ELECTRIC	CAPACITY	COIL PWR	BLECTRIC	CAPACITY	ELECTRIC	CAPACITY	COIL PWR	
	KM	BTU/HR	BTU/HR	KM	BTU/HR	KW	BTU/HR	BTU/HR	
	(47)	(70)	( 5)	(49)	(78)	(47)	(70)	(5)	
MONTHLY	SUMMARY (AUG)				_				
MIN	0.000	136060.	0.	3.897	0.	0.000	239430.	0.	
MX	6.204	179548.	0.		0.			0.	
SM	1231.659	113796704.	٥.		0.		195838480.	0.	
AV	1.655	152953.	0.	3.897	0.	6.212	263224.	0.	•
MONTHLY	SUMMARY (SEP)				_		*****		
MIN	0.000	136084.	0.	3.897	0.		236464.	0.	
MX	6.284	178913.		3.897	0.	16.238	382190.	0.	
SM	799.156	109352464.	0.	2805.635	0.	2744.827		0.	
AV	1.110	151878.	0.	3.897	0.	3.812	264636.	0.	•
	SUMMARY (OCT)			2 007	200020	2 200	243732.	-100650	
MDV	0.000	141099.	-105263.	3.897	-208820. 0.	11.717		-100650	
MX	5.385	168743.	0.	3.897	-80186712.	2567.402		-	-
SM	1184.772	111937384.	-14865281.	2899.156	-107778.	3.451	264083.	-19072	
AV	1.592	150453.	-19980.	3.897	-10///8.	3.431	264063.	-13072	•
	SUMMARY (NOV)			2 007	-208820.	0.000	257595.	-54846	
MIN	0.000		-56509.	3.897	-208820.	0.000	369621.		
MX	0.000	179606.	0.	3.897 2805.635	-150350096.	0.000	193682288.	-13024957	
SM	0.000	109714776.		3.897	-208820.	0.000	269003.	-18090	
AV	0.000	150993.	-18934.	3.697	-208820.	0.000	203003.	10030	•
	SUMMARY (DEC)			3.897	-208820.	0.000	257595.	-57282	
MN	0.000	149125.		3.897	-208820.	0.000	361918.	-4	
MIX	0.000	158054.	-4. -23342012.	2899.156	-155361760.	0.000	195442736.	-22514840	
SM	0.000	111067584.	-23342012.	3.897	-208820.	0.000	262692.	-30262	
AV	0.000	149284.	-313/4.	3.09/	-200020.	0.000	202072.	-30202	•
	SUMMARY			3.897	-208820.	0.000	234673.	-100650	
MIN	0.000	134542.		3.897	-208820.	18.597		-100630	
MIX	6.284	184054.	0.	34135.223	-987298944.	20064.119		-117796096	
SM	4085.357	1325424640.	-122390560.	3.897	-112705.	2.290	264437.	-13447	
VA	0.466	151304.	-13972.	3.897	-112/03.	2.290	404437.	-13441	•

READING, 19603 PT. GEORGE G. MEADE RMCS STUDY Pλ PAGE 1- 3 - HOURLY-REPORT H-1 \_\_\_\_\_ AHU-5 AHU-5 AHU-5 AHU-5 AHU-4 AHU-4 AHU-4 **МНОЮНН** AHU-4 COOLING SUPPLY HEATING TOT HTG HRATING COOLING COOLING. BLECTRIC CAPACITY ELECTRIC COIL PWR CAPACITY BLECTRIC CAPACITY BLECTRIC KW BTU/HR BTU/HR BTU/HR KW KM BTU/HR KW ---(5) ---- (49) --- (78) --- (70) --- (49) ---- (78) ---- (47) MONTHLY SUMMARY (JAN) 7.435 7.435 -398455. 0.000 3.744 3.744 247750. -128699. -200643. 0.00 MN -398455. 0.000 504335. -5. 0.000 ΜX -200643. -149278352. 0.000 188034464. -45404916. 5531.971 -296450816. 0.000 2785.634 SM -398455. 0.000 252735. 7.435 ΑV 3.744 -200643. 0.000 -61028. MONTHLY SUMMARY (FEB) 3.744 3.744 7.435 -398455. 0.000 -200643. 0.000 247750. -139365. MN 7.435 -398455. 0.000 344337. MX -200643. 0.000 -2. 169124048. -39164556. 4996.619 -267762000. 0.000 0.000 2516.056 -134832080. SM -200643. 0.000 251673. -58281. 7.435 -398455. 0.000 3.744 AV MONTHLY SUMMARY (MAR) 3.744 3.744 -200643. 0.000 247750. -116253. 7.435 -398455. 0.000 MN -398455. 0.000 7.435 MX -200643. 0.000 398546 o. -26004134. 5531.971 -296450816. 0.000 189326160. 2785.634 -149278352. 0.000 -34952. 7.435 -398455. 0.000 -200643. 0.000 AV 3.744 MONTHLY SUMMARY (APR) 3.744 246513. -91589. 7.435 -398455. 0.000 -200643. 0.000 MN -398455. 0.000 3.744 -200643. 0.000 392202. 0. 7.435 MX -11894196. -286887872 187155520. 5353.521 2695.775 -144462928. 0.000 -398455. -16520. 7.435 0.000 0.000 259938. -200643. AV 3.744 MONTHLY SUMMARY (MAY) 0.000 227398. n 7.435 ٥. 0.000 Ο. MN 3.744 3.744 28.702 7.435 11.772 375376. ۵. 0. ΜX 5531.971 3119.360 189742960. 0. 2785.634 ٥. 1473.378 1.980 255031. ο. 7.435 0. 4.193 ٥. AV 3.744 MONTHLY SUMMARY (JUN) 0.000 225729. ٥. 7.435 ٥. 0.000 3.744 3.744 MN 36.651 7.435 0. 17.935 334769 ٥. ٥. 5353.521 7407.872 182575488. 3630.229 SM 2695.775 Ο. 7.435 253577. 0. ٥. 10.289 Ο. 3.744 AV MONTHLY SUMMARY (JUL) 0.000 3.744 3.744 0.000 230960. n 7.435 ٥. MN 36.252 7.435

BZDOB - ELITE SOFTWARE DEVELOPMENT INC

ENTECH ENGINEERING

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DOE-2.1D 6/ 5/1996 15:10:30 SDL RUN 1

ENTECE ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/5/1996 15:10:30 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
H-1 HOURLY-REPORT PAGE 2- 3

read -1	DING, PA HOU	19603 RLY-REPORT	FT. GEORGE	G. MEADE		BMCS STUDI		PAGE 2-	. 3
	AHU-4	AHU-4	AHU-4	AHU-4	AHU-5	AHU-5	AHU-5	AHU-S	
	SUPPLY BLECTRIC KW	HEATING CAPACITY BTU/HR	COOLING BLECTRIC KW	COOLING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY BLECTRIC KW	HEATING CAPACITY BTU/HR	COOLING ELECTRIC KW	
	(49)	(78)	(47)	(70)	( 5)	(49)	(78)	(47)	
MONTHLY	SUMMARY (AUG)								
MIN	3.744	0.	0.000	230267.	٥.	7.435	0.	0.000	
MOC	3.744	0.	17.608	334015.	0.	7.435	0.	35.876	
SM	2785.634	0.	4487.641	188350336.	0.	5531.971	0.	9112.055	
AV	3.744	Ο.	6.032	253159.	٥.	7.435	0.	12.247	
MONTHLY	SUMMARY (SEP)						_		
MN	3.744	٥.	0.000	227412.	0.	7.435	0.		
MX	3.744	0.	15.786	367074.	0.	7.435	0.		
SM	2695.775	0.	2685.555	183264848.	0.	5353.521	0.		
AV	3.744	0.	3.730	254535.	0.	7.435	0.	7.630	
MONTHLY	SUMMARY (OCT)								
MIN	3.744	-200643.	0.000	234417.	-194851.	7.435		0.000	
MX	3.744	0.	11.458	340748.	0.	7.435		23.802	
SM	2785.634	-77046904.	2497.934	188977360.	-27386808.	5531.971		5171.024	
AV	3.744	-103558.	3.357	254002.	-36810.	7.435	-205654.	6.950	
MONTHLY	SUMMARY (NOV)								
MIN	3.744	-200643.	0.000	247750.	-104603.		-398455.	0.000	
MIX	• • • • • •	-200643.	0.000	355036.	0.	7.435		0.000	
SM		-144462928.	0.000	186265520.	-22957328.	5353.521		0.000	
AV	3.744	-200643.	0.000	258702.	-31885.	7.435	-398455.	0.000	
	SUMMARY (DEC)					2 425	-398455.	0.000	
MIN		-200643.	0.000	247750.	-108963.	7.435		0.000	
MX	3.744	-200643.	0.000	347541.	-3.	7.435		0.000	
SM	2785.634	-149278352.	0.000	187942144.	-40597228.	5531.971		0.000	
λV	3.744	-200643.	0.000	252610.	-54566.	7.435	-398455.	0.000	
YEARLY	SUMMARY						300455		
MN	3.744	-200643.	0.000	225729.	-194851.	7.435		0.000	
MX	3.744	0.	17.935	504335.	0.	7.435	0.	36.651	
SM	32798.594	-948639872.	19444.377	2227761152.	-213409184.		-1883897088.	39743.281	
AV	3.744	-108292.	2.220	254311.	-24362.	7.435	-215057.	4.537	

BZDOB - ELITE SOFTWARE DEVELOPMENT INC EMCS STUDY READING, 19603 PT. GEORGE G. MEADE PAGE 1- 4 - HOURLY-REPORT ....... AHU-7 AHU-7 AHU-6 AHU-6 AHU-6 AHII-6 AHU-6 AHU-5 MMODHH HRATING COOLING COOLING TOT HTG SUPPLY TOT HTG SUPPLY COOLING RESCURIC BLECTRIC CAPACITY BLECTRIC CAPACITY COIL PWR COIL PWR CAPACITY BTU/HR BTU/HR KM BTU/HR KW BTU/HR XM BTU/HR ---- (70) ----( S) ---- (49) ---- (78) ---- (47) ----(5) ---- (49) ---- (70) MONTHLY SUMMARY (JAN) -145873. 8.286 -444056. 0.000 544445. -244791. 11.948 MN 492026. -22872. 11.948 8.286 -444056. 0.000 1108185. 1001767. MX 413257152. -111348536. 0.000 -330377696. 373537376. -53775696. 6165.075 0.000 555453. -149662. 11.948 8.286 -444056. -72279. AV 502066. MONTHLY SUMMARY (FEB) -444056. 0.000 -251121. 11.948 -152659. 8.286 492026. 8.286 -444056. 0.000 756698. -6. -94134304. 11.948 -2. MX 684058. 8029.300 -45229616. 5568.454 -298405664 0.000 371764768. 336022336. 553221. -140081. 11.948 -67306. -444056. 0.000 500033. 8.286 MONTHLY SUMMARY (MAR) -210949. 11.948 0.000 544445. -444056. 492026. -129612. 8.286 875886. 11.948 -444056. 0.000 8.286 ΜX 791780. ٥. -74790696 -29845776. 6165.075 -330377696. 0.000 416361632. 8889 582 SM 376314368. -99853. 11.948 -40115. 8.286 -444056. 0.000 559626. AV 505799. MONTHLY SUMMARY (APR) -184174. -104389. 8.286 -444056 0.000 541726. 11.948 489569. 11.948 0.000 862135. 8.286 -444056. ΜX 779743. ٥. -43852960. -13368590. 5966.201 -319720352. 0.000 412201376. 8602.821 372497408. SM -60907. 11.948 572502. -18567. 8.286 -444056 0.000 ΑV 517358. MONTHLY SUMMARY (MAY) 451607. 0.000 499719. Ο. 11.948 ο. 8.286 0. ٥. 824856. 11.948 8.286 MX 745542. ٥. 8889.582 376460160. 6165.075 ο. 3630.430 416400224. Ο. SM 559678. ٥. 11.948 4.880 AV 505995. ٥. 8.286 ٥. MONTHLY SUMMARY (JUN) ٥. 0.000 495446. ٥. 11.948 8.286 448351. ٥. 40.737 775590. ٥. 11.948 8.286 MX 658452. 8602.821 5966.201 ο. 8536.124 400706432. 0. ٥. 11.856 8.286 0. ΑV 503105. ٥. MONTHLY SUMMARY (JUL) 0.000 505346. ٥. 11.948 8.286 458369. ٥. MN 8.286 0. 40.427 761152. ٥. 11.948 687963. MX 10767.900 409904544. 8889.582 0. 371284864. 0. 6165.075 0. 8.286 550947. ٥. 11.948 Ο. ΔV 499039.

ENTECH ENGINEERING

DOE-2.1D 6/ 5/1996 15:10:30 SDL RUN 1

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/5/1996 15:10:30 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE ENCS STUDY
PAGE 2- 4

-1 	- 2001	LLY-REPORT						
	AHU-5	AHU-6	AHU-6	AHU-6	AHU-6	AHU-6	<b>AHU-</b> 7	AHU-7
	COOLING CAPACITY BTU/HR	TOT BTG COIL PWR BTU/BR	SUPPLY ELECTRIC KW	HEATING CAPACITY BTU/HR	COOLING BLECTRIC KW	COOLING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY ELECTRIC KW
	(70)	( 5)	(49)	(78)	(47)	(70)	(5)	(49)
MONTHLY	SUMMARY (AUG)						_	
MN	457050.	0.	8.286	0.		504320.	0.	
MOX	663421.	0.	8.286	٥.		733648.	٥.	11.948
SM	373994432.	0.	6165.075		10258.932	413032960.	٥.	
AV	502681.	0.	8.286	0.	13.789	555152.	٥.	11.948
MONTHLY	SUMMARY (SEP)						_	
MN	451506.	0.			0.000	498903.	0.	
MX	729023.	٥.	8.286	0.		806504.	0.	11.948
SM	363840448.	٥.	5966.201	0.	6160.016	402057152.	0.	8602.821
AV	505334.	0.	8.286	0.	8.556	558413.	0.	11.948
MONTHLY	SUMMARY (OCT)							11.948
MIN	465547.	-220714.	8.286	-444056.	0.000	515145.	-374132.	
MX	676902.	0.	8.286	0.	26.186	748676.		11.948
SM	375190784.		6165.075	-170517520.	5722.403	415046400.	-52938428. -71154.	8889.582 11.948
AV	504289.	-41435.	8.286	-229190.	7.691	557858.	-/1154.	11.940
	SUMMARY (NOV)					54445	101747	** 040
MN	492026.	-117833.	8.286		0.000	544445.	-181343. 0.	11.948 11.948
MX	706729.	0.	8.286	-444056.	0.000	780944.	-67 <b>63</b> 7808.	8602.821
SM	370356832.	-27846774.	5966.201	-319720352.	0.000	409590496. 568876.	-6/63/808. -93941.	11.948
AV	514385.	-38676.	8.286	-444056.	0.000	568876.	-93941.	11.948
	SUMMARY (DEC)					54445	210216	11.948
MN	492026.	-125700.	8.286	-444056.	0.000	763992.	-210216. -4154.	11.948
MX	691068.	-3.	8.286	-444056.	0.000	413088000.	-102711912.	8889.582
SM	373422432.	-48595160.	6165.075	-330377696. <b>-444</b> 056.	0.000	555226.	-138054.	11.948
AV	501912.	-65316.	8.286	-444036.	0.000	333226.	-136034.	11.340
	SUMMARY					105446	-374132.	11.948
MN	448351.	-220714.	8.286		40.737	495446. 1108185.		11.948
MX	1001767.	0.	8.286	0.		1108185. 4893411328.		104667.656
SM	4425156608.	-249489056.			45075.801	4893411328. 558609.		11.948
AV	505155.	-28480.	8.286	-239669.	5.146	3586UY.	-62433.	11.745

READ	ING, PA	NEERING 19603 URLY-REPORT	EZDOB - ELITE FT. GEORGE G.	DEVELOP	ENT INC	DOB-2.1D STUDY	6/	5/1996	15:10:3	L RUN 1	
H-1		UKLI-KBPOKI		 		 				 	-
MMDDHH	AHU-7	AHU-7	AHU-7								
	HEATING	COOLING	COOLING CAPACITY								
	CAPACITY	BLECTRIC									
	BTU/HR	KM	BTU/HR								
	(78)	(47)	(70)								
MONTHLY	SUMMARY (JAN	1)									
MN	-640296.	0.000	757338.								
MX	-640296.	0.000	1620807.								
SM	-476380256.	0.000	576819968.								
AV			775296.								
MONTHT.Y	SUMMARY (FEI	3)									
MN	-640296.	0.000	757338.								
MX	-640296.		1089389.								
	-430278944.		518337184.								
AV	-640296.		771335.								
	SUMMARY (MAI	R)									
	-640296.		757338.								
MIX											
SM	-476380256.										
VA	-640296.	0.000	779673.								
MONTHLY	SUMMARY (AP										
MN	-640296.	0.000	753557.								
MX	-640296.	0.000	1248999.								
SM	-461013152.	0.000	572119808.								
AV	-640296.	0.000	794611.								
MONTHLY	SUMMARY (MA	Y)									
MIN	0.	0.000	695124.								
MX	0.	29.551	1196021.								
SM	0.	3071.270	580649088.								
AV	0.	4.128	780442.								
MONTHI.Y	SUMMARY (JU	N)									
MEN	0.		687971.								
MX	0.										
SM	٥.	9231.158	557053824.								
AV	0.		773686.								
		<b></b> .									
	SUMMARY (JU	V 200	698384.								
MN	0.										
MX		46.674									
SM		12174.275	764160.								
AV	0.	16.363	/09100.								

RE		engine Pa	ERING 19603	EZDOE - ELI FT. GEORGE	TE SC	optnari Bade	B DEVE	OPMENT	INC	EMCS	DOB-2.1	D.	6/ 5	5/1996	15	:10:3			
-1		- HOUR	LY-REPORT														PAGE	2-	
	AHU-7		AHU-7	AHU-7															
	HEATING		COOLING	COOLING															
	CAPACIT	Y	BLECTRIC	CAPACITY															
	BTU/HR		KW	BTU/HR															
	(78	)	(47)	(70)															
MONTHI	Y SUMMARY	(AUG)																	
MN		0.	0.000	699105.															
MX		٥.	45.459	1045534.															
SM		0.	11279.715	573426048.															
AV		0.	15.161	770734.															
MONTHI	Y SUMMARY	(SEP)																	
MN		0.	0.000	693453.															
MX		ο.	42.270	1157466.															
SM		٥.	6325.678	560212736.															
AV		٥.	8.786	778073.															
MONTH	LY SUMMARY	(OCT)																	
MN	-6402	96.	0.000																
MX		Ο.	28.883	1068438.															
SM	-2458736	80.	5954.146	578085056.															
AV	-3304	175.	8.003	776996.															
MONTH	LY SUMMARY	(NOV)																	
MIN	-6402	296.	0.000	757338.															
MX	-6402	296.	0.000	1116284.															
SM	-4610131	152.		569672704.															
AV	-6402	296.	0.000	791212.															
MONTH	LY SUMMARY																		
MN				757338.															
MX	-6402			1097552.															
SM			0.000	576262016.															
AV	-6402	296.	0.000	774546.															
	Y SUMMARY																		
MN		296.																	
MX		0.		1620807.															
SM			48036.238																
AV	-345	584.	5.484	777540.															

EZDOE - ELITE SOFTMARE DEVELOPMENT INC DOE-2.1D 6/5/1996 15:10:30 PDL RUN 1
PT. GEORGE G. MEADE EMCS STUDY
WEATHER PILE- BALTIMORE, MD

ENTECH ENGINEERING EZDCE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/5/1996 15:10:30 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PV-A EQUIPMENT SIZES MEATHER FILE- BALTIMORE, MD

NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER SIZE INSTD (MBTU/H) AVAIL (MBTU/H)

2.500 1 1 2.500 1 1 HW-BOILER

ENTECH ENGINEERING EZDOE - ELITE SOFTMARE DEVELOPMENT INC DOE-2.1D 6/ 5/1996 15:10:30 PDL RUN 1
READING, PA 19603 FT. GRORGE G. MEADE EMCS STUDY
REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY MEATHER FILE- BALTIMORE, MD

SOURCE SITE ENERGY 8 9 10 11 12 13 14 5 2 3 4 TOTAL TOTAL BLEC PUBL BLEC FURL TOTAL TOTAL TOTAL WASTED PUBL BLECTR RCVRED RCVRABL INPUT INPUT INPUT INPUT PUEL SITE SOURCE HEAT COOLING ENERGY ENERGY COOLING COOLING HEATING HRATING ELECT INPUT ENERGY \* RNERGY LOAD MONTH LOAD 0.0 0.0 0.0 559.1 42.3 0.0 559.1 901.9 \* 1588.6 0.0 JAN 344.2 100.4B O.OR 12.4E 0.0 491.3 37.3 0.0 491.3 800.3 \* 1419.3 309.0 0.0 0.0 0.0 FEB 303.1 0.0 90.58 O.OE 10.9E 0.0 405.0 0.0 405.0 755.2 \* 1456.9 350.3 0.0 0.0 MAR 247.9 0.0 102.6B 0.0E 10.18 0.0 0.0 269.7 26.8 269.7 592.5 \* 1239.2 322.8 0.0 0.0 APR 165.1 0.0 94.5E 0.08 7.88 0.0 0.0 0.0 0.0 MAY 0.0 0.0 344.4 0.0 0.0 0.0 0.0E 0.08 100.9B 0.0 0.0 0.0 0.0 0.0 JUN 0.0 0.0 415.8 0.0 0.0 121.88 0.0E 0.08 1324.2 0.0 0.0 441.0 0.0 JUL 0.0 0.0 0.0 129.1E 0.0E O.OE 0.0 460.0 1381.5 0.0 460.0 AUG 0.0 0.0 0.0 0.0 0.08 0.0E 134.7E 0.0 0.0 0.0 0.0 1145.5 0.0 0.0 381.4 SEP 0.0 0.0 111.78 0.0E 0.0B 0.0 21.7 0.0 284.0 681.5 \* 1477.8 397.5 0.0 0.0 0.0 OCT 174.4 0.0 116.4B 0.08 6.4E 325.8 29.8 0.0 325.8 644.0 \* 1281.3 0.0 318.2 0.0 0.0 NOV 199.4 0.0 93.2B 0.0B 8.78 0.0 0.0 0.0 0.0 504.1 39.8 0.0 504.1 844.4 \* 1526.1 340.3 DEC 308.6 0.0 99.7E O.OE 11.6B

7262.6 • 16123.2

2839.0

0.0

232.0

67.9B

NOTE-- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES FOLLOWED BY E ARE IN MWH (THOUSANDS OF KWH)

0.0

0.0

0.0

0.0

0.08

2839.0

4423.7

1295.68

1742.6

EZDOE - BLITE SOFTMARE DEVELOPMENT INC DOE-2 DOE-2.1D 6/5/1996 15:10:30 PDL RUN 1 ENTECH ENGINEERING PEADING, PA 19603 FT. GEORGE G. MEADE
REPORT- PS-8 MONTHLY PEAK AND TOTAL ENERGY USE WEATHER FILE- BALTIMORE, MD

NATURAL-GAS ITTILITY-RLECTRICITY MO TOTAL (MBTU) 342.829 559.092 1022.384 17/ 8 JAN PEAK (KBTU) 1208.539 16/21 DY/HR TOTAL (MBTU) 309.037 491.302 1250.912 FKB PEAK (KBTU) 1019.808 4/8 12/13 DY/HR TOTAL (MBTU) 350.291 404.957 PEAK (KBTU) 1008.026 1121.972 MAR 4/8 5/8 DY/HR 322.820 269.727 TOTAL (MBTU) PEAK (KBTU) 1000.491 986.455 APR DY/HR 9/8 TOTAL (MBTU) 344.377 0.000 PEAK (KBTU) 1315.245 0.000 MAY DY/HR 6/16 31/ 1 TOTAL (MBTU) 415.817 0.000 אטע PEAK (KETU) 1526.181 0.000 30/1 10/16 DY/HR 440.963 1532.838 TOTAL (MBTU) 0.000 PEAK (KBTU) 0.000 JUL DY/HR 31/ 1 TOTAL (MBTU) 460.036 0.000 AUG PEAK (KBTU) 1531.967 0.000 DY/HR 18/16 31/ 1 TOTAL (MBTU) 381.444 0.000 SEP PEAK (KBTU) 1482.447 0.000 30/1 1/16 DY/HR 397.521 1370.197 284.015 TOTAL (MBTU) PEAK (KBTU) 1642.267 OCT 18/16 TOTAL (MBTU) 318.190 325.776 PEAK (KBTU) 1001.558 1001.703 NOV DY/HR 25/ B 25/7 TOTAL (MBTU) 340.343 504.092 1009.748 6/8 DEC PEAK (KBTU) 1072.836 DY/HR 22/ 3 ONE YEAR 4423.668 2838.961 1642.267

USB/PEAK

1532.838

ENTECH ENGINEERING BZDOB - BLITE SOFTWARE DEVELOPMENT INC DOB-2.1D 6/ 5/1996 15:10:30 PREADING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

DOE-2.1D 6/ 5/1996 15:10:30 PDL RUN 1

HEATING LOADS MBTU SUPPLIED PCT OF TOTAL LOAD ----------1742.6 HW-BOILER 100.0 \*\*\*\*\*\*\*\*\*\*\*\*\*\* LOAD SATISFIED 1742.6 100.0 1742.6 TOTAL LOAD ON PLANT MBTU SUPPLIED PCT OF TOTAL LOAD ..... BLECTRICITY 4423.7 100.0

LOAD SATISFIED TOTAL LOAD ON PLANT 4423.7 4423.7

## SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
HEATING LOADS	1742.6	1742.6	0.000	0.000	0
ELECTRICAL LOADS	4423.7	4423.7	0.000	0.000	

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 6/5/1996 15:10:30 FDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER FILE- BALTIMORE, MD

ENTECH ENGINEERING EZDOE - ELITE SOFTMARE DEVELOPMENT INC
READING, PA 19603 FT. GBORGE G. MEADE ENCS STUDY
REPORT- PS-I EQUIPMENT LIFE CYCLE COSTS WEATHER FILE- BALTIMORE, MD

B Q U I P M B N T T O T A L S

HW-BOILER		139.9			
	NOMINAL SIZE (MI	BTU)		2.500	2.500
	NUMBER INSTALLED	•		1	1
	FIRST COST (	K\$)	131.1	65.5	65. <b>5</b>
	ANNUAL COST ()	K\$)	2.1	1.0	1.0
	CYCLICAL COST ()	K\$)	6.8	6.8	0.0
	(I	K\$)		73.4	66.6
EQUI	PMENT TOTAL	139.9			

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE MEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE MBTU -	BLECTRICITY	NATURAL-GAS
CATEGORY OF USE		
SPACE HEAT	151.62	2838.96
SPACE COOL	616.41	0.00
HVAC AUX	1281.45	0.00
DOM HOT WIR	0.00	0.00
AUX SOLAR	0.00	0.00
LIGHTS	1721.76	0.00
VERT TRANS	0.00	0.00
MISC EQUIP	652.34	0.00
TOTAL	4423.59	2838.96

TOTAL SITE ENERGY 7262.63 MBTU 83.9 KBTU/SQFT-YR GROSS-AREA 83.9 KBTU/SQFT-YR NET-AREA TOTAL SOURCE ENERGY 16123.25 MBTU 186.2 KBTU/SQFT-YR GROSS-AREA 186.2 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 34.5 PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.0

NOTE BLECTRICITY AND/OR FUEL USED TO GENERATE BLECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

HOURLY DATA FILE 2FROM PROG 3

REAL	ENTECH ENGINE DING, PA	ERING 19603	EZDOE - ELIT FT. GEORGE G	DEVELOPMENT	DOB-2.1D DMCS STUDY	6/ 5/1996		
RLY-1	- HOUR				 		PAGE	1- 1
MDDHH	HW-BOILE		HW-BOILE	 			 	
	R	R	R					
	LOAD	RLECTRIC	FUEL					
		USE	USE					
	BTU/HR	BTU/HR	BTU/HR					
	( 1)	(3)	( 4)					
MONTHLY	SUMMARY (JAN)							
MIN	91378.	8041.	149325.					
MX	782297.	55000.	149325. 1208539.					
SM		29611900.						
AV	462661.		751468.					
MONTHIT V	SUMMARY (FEB)							
MN	80235	7061	131116.					
MX	818132. 303069920.	55000	1250912					
SM	20206920	25883958	491302368					
AV	450997.	38518.	731105.					
MONTHUT V	SUMMARY (MAR)							
MIN	74031	6515	120977					
MIX	700354	55000	120977. 1121972.					
SM	247940000.	21776368	404957152.					
AV		29269.						
AV	333253.	23203.	344437.					
MONTHLY	SUMMARY (APR)							
MIN	63713.	5607.	104117.					
MX	603654.	53122.	986455.					
SM	165057376.	14525047.	269726752.					
AV	229246.	20174.	374621.					
MONTHLY	SUMMARY (MAY)							
MON	0.	0.	0.					
MX	0.	0.	٥.					
SM	0.	0.	0.					
AV	0.	0.	0.					
MONTHLY	SUMMARY (JUN)							
MIN	0.	0.	0.					
MX	0.		0.					
SM	0.	0.	0.					
AV	0.		0.					
MONTHLY	SUMMARY (JUL)							
MN	0.		0.					
MX	0.		0.					
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REAL	,	PA	19603	BZDOB - BLITE FT. GBORGE G	DEVELOPMENT	r INC	DOE-2.1D STUDY	6/	5/1996	15:10:30	PDL	
HRLY-1			-RBPORT		 		 				PAGE	 
	HM-BOILE		HW-BOILE	HW-BOILE								
	R		R	R								
	LOAD		BLECTRIC	FUEL								
			USE	USE								
	BTU/HR		BTU/HR	BTO/HR								
	( 1)		(3)	(4)								
MONTHLY	SUMMARY (2	LUG)										
MIN		٥.	٥.	0.								
MX		0.	٥.	0.								
SM		0.	0.	0.								
AV		٥.	0.	0.								
MONTHT.V	SUMMARY (S	RPI										
MN		0.	0.	0.								
MX		0.	0.	0.								
SM		0.	0.	o.								
AV		o.	0.	0.								
MONTHLY	SUMMARY (	OCT)										
MON			0.	0.								
MCK	11532		55000.									
			15160102.									
AV	2343		20376.	381740.								
MONTHI.Y	SUMMARY (I	(VOV										
MN	347		3055.	56727.								
MX	6129		53943.	1001703.								
	1993561		17543346.	325775936.								
AV	2768		24366.	452467.								
MONTHLY	SUMMARY (1	DEC)										
MIN	507		4467.	82955.								
MX	6681	08.	55000.	1072836.								
SM	3085601	60.	27125518.	504091968.								
AV	4147	31.	36459.	677543.								
YBARLY	SUMMARY											
MN		٥.	0.	0.								
MX	11532		55000.									
SM			151626240.	2838960896.								
AV	1989	25.	17309.	324082.								
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REAL H-1	ENTECH ENGINE DING, PA = HOUR	ERING 19603 LY-REPORT	EZDOE - EL FT. GEORGE		EVELOPMENT INC	DOE-2.	ID 6/7/1996	8:49:38 SDL RUN 1 PAGE 1- 1
миррин	AHU-1	AHU-1	AHU-1	AHU-1	AHU-1	AHU-2	AHU-2	AHU-2
	TOT HTG COIL PWR BTU/HR	SUPPLY ELECTRIC KM	HEATING CAPACITY BTU/HR	COOLING BLECTRIC KW	COOLING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY BLECTRIC KW	HEATING CAPACITY BTU/HR
	( 5)	(49)	(78)	(47)	(70)	( 5)	(49)	(78)
MONTHLY	SUMMARY (JAN)							
MIN	-98794.	1.819	-100150.	0.000	112264.	-98794.	1.819	-100150.
MX	-26856.	1.819	-100150.	0.000	112264.	-26856.	1.819	-100150.
SM	-15659449.	458.451	-25237706.	0.000	28290524.	-15659449.	458.451	-25237706.
AV	-62141.	1.819	-100150.	0.000	112264.	-62141.	1.819	-100150.
MONTHLY	SUMMARY (FEB)							
MIN	-98367.	1.819	-100150.	0.000	112264.	-98367.	1.819	-100150.
MX	-31720.	1.819	-100150.	0.000	112264.	-31720.	1.819	-100150.
SM	-16063894.	414.789	-22834114.	0.000	25596188.	-16063894.	414.789	-22834114.
AV	-70456.	1.819	-100150.	0.000	112264.	-70456.	1.819	-100150.
MONTHLY	SUMMARY (MAR)							
MN	-96410.	1.819	-100150.	0.000	109484.		1.819	
MX	-28210.	1.819	-100150.	0.000	115554.	-28210.	1.819	-100150.
SM	-18141912.	502.113	-27641298.	0.000	30978028.	-18141912.	502.113	-27641298.
AV	-65732.	1.819	-100150.	0.000	112239.	-65732.	1.819	-100150.
MONTHLY	SUMMARY (APR)							
MN	-95716.	1.819	-100150.	0.000	105515.	-95716.	1.819	-100150.
MOX	-16304.	1.819	-100150.	0.000	118746.	-16304.	1.819	-100150.
SM	-13704012.	458.451	-25237706.	0.000	28321958.		458.451	-25237706.
AV	-54381.	1.819	-100150.	0.000	112389.	-54381.	1.819	-100150.
MONTHLY	SUMMARY (MAY)							•
MIN	0.	1.819	0.	0.000	103042.	0.	1.819	0.
MX	٥.	1.819	0.	0.000	126508.	٥.	1.819	0.
SM	0.	458.451	Ο.	0.000	28568184.	0.	458.451	<u>o</u> .
AV	0.	1.819	0.	0.000	113366.	٥.	1.819	0.
MONTHLY	SUMMARY (JUN)							•
- MIN	0.	1.819	٥.	0.000	102519.	0.	1.819	0.
MX	0.	1.819	٥.	4.270	134095.	0.	1.819	0.
SM	0.	480.282	0.	99.363	31035230.	0.		0.
AV	0.	1.819	0.	0.376	117558.	0.	1.819	٥.
	SUMMARY (JUL)					_		0
MN	0.	1.819	0.	0.000	104622.	0.	1.819	0.
MX	0.	1.819	0.	6.738	139979.	0.	1.819	0.
SM	0.	436.620	0.	720.549	28368608.	٥.	436.620	0.
AV	0.	1.819	٥.	3.002	118203.	0.	1.819	0.

EZDOB - ELITE SO. .... PT. GEORGE G. MEADE ENTECH ENGINEERING EMCS STUDY 19603 READING, PA 19603 - HOURLY-REPORT PAGE 2- 1 H-1 ------AHU-1 AHU-2 AHU-2 AHU-2 AHU-1 AHU-1 AHU-1 AHU-1 TOT HTG SUPPLY HEATING COOLING TOT HTG SUPPLY HEATING COOLING BLECTRIC CAPACITY COIL PWR BLECTRIC CAPACITY COIL PWR BLECTRIC CAPACITY BTU/HR BTU/HR BTU/HR KW BTU/HR BTU/HR KN ----(5) ---- (78) ----(47) ---- (70) ---- (49) ----( 5) ---- (49) ----(78) MONTHLY SUMMARY (AUG) 106643. 1.819 ٥. 0. 1.819 ٥. 0 000 ٥. MN 129796. 1.819 ٥. ٥. Ο. 1.819 0. 8.360 31891918. 502.113 502.113 1170.358 SM ٥. 0. 115550 4.240 1.819 ο. ٥. ο. 1.819 ΑV MONTHLY SUMMARY (SEP) 1.819 0.000 106563. ٥. ٥. 1.819 MN ο. 7.797 742.718 1.819 0. 129226. ٥. 1.819 ٥. MX 28648078. 458.451 0. 458.451 ٥. ο. 1.819 ٥. 113683. ٥. 1.819 AV 0. MONTHLY SUMMARY (OCT) 0.000 107843. -58843. 1.819 -100150. 1.819 -100150. MN -58843. ٥. 5.304 119915. ٥. 1.819 0. MX -13219748. -1973158. -13219748. 27068346. 436.620 501.268 -1973158. 436.620 -55082. 2.089 -55082. ΑV -8221. 1.819 MONTHLY SUMMARY (NOV) 1.819 -100150. 0.000 -100150. MON -83127. 1.819 1.819 -100150. 0.000 134181. -13. 1.819 -100150. -13. MX -2718370. -2718370. 27397674. 436.620 -24035910. 436.620 -24035910. 0.000 114157 -11327. 0.000 AV -11327. 1.819 -100150. MONTHLY SUMMARY (DEC) -100150. 112264. -95797. 1.819 -100150. 1.819 MN -95797. -100150. 0.000 113907. -5380. 1.819 -100150. -5380. 1.819 MX -9478138. 458.451 -25237706. -9478138. 458.451 -25237706. 0.000 28295804. -37612. -100150. 1.819 -100150.

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EZDOE - ELITE SOFTMARE DEVELOPMENT INC

DOE-2.1D 6/ 7/1996

8:49:38 SDL RUN 1

EMCS STUDY 19603 FT. GEORGE G. MEADE - HOURLY-REPORT PAGE 1- 2 H-1 AHU-3 AHU-4 AHU-3 AHU-3 MMODHH AHU-2 AHU-2 AHU-3 AHU-3 TOT HTG SUPPLY HEATING COOLING COOLING TOT HTG COOLING COOLING BLECTRIC CAPACITY COIL PWR BLECTRIC CAPACITY COIL PWR BLECTRIC CAPACITY BTU/HR BTU/HR BTU/HR KW BTU/HR BTU/HR KW ---(5) ----(5) ---- (49) ---- (78) ---- (47) ---- (70) ---- (70) ---- (47) MONTHLY SUMMARY (JAN) 0.000 112264. -182275. 3.527 -194161. 0.000 234782. -177133. MN 0.000 112264. -20. 3.527 -194161. 0.000 234782. -20. MX 59164984. -12248495. -12676588. 888.803 -48928576. 0.000 0.000 28290524. 0.000 234782. -48605. 3.527 -50304. ΑV 0.000 112264. MONTHLY SUMMARY (FEB) -194161. 0.000 234782. -175858. 0.000 3.527 -180963. 112264. 3.527 -194161. 0.000 242958. -17. 112264. MX. 0.000 -9060608. -9348848. 53568996. 25596188. 804.155 -44268712. 0.000 0.000 SM 3.527 -194161. 0.000 -39740. -41004. λV 0.000 112264. MONTHLY SUMMARY (MAR) 230121. -166317. 3.527 -194161. 0.000 0.000 109484. -172381. 248268. 3.527 -194161. 0.000 -9. 115554. -9. MX 0.000 -3852491. -3975211. 64878796. 30978028. 973.451 -53588440. 0.000 0.000 SM 0.000 235068. -13958. -194161. 0.000 112239. -14403. 3.527 MONTHLY SUMMARY (APR) 3.527 -194161. 0.000 232442. -84017. -85957. 0.000 105515. ٥. -194161. 0.000 272631. 0. 118746. MX 0.000 -556248. 60097276. 0.000 28321958. -555214. 888.803 -48978576 0.000 SM 238481. -2207. 0.000 0.000 112389. -2203. 3.527 -194161. MONTHLY SUMMARY (MAY) 215495. 0.000 3.527 0. 0.000 103042. ο. 3.527 ٥. 14.469 268083. ٥. 126508. 0. MX 0.000 0. 888.803 ٥. 1198.524 60012612. ٥. 0.000 SM 238145. О. 0. 4.756 AV 0.000 113366. ٥. 3.527 MONTHLY SUMMARY (JUN) 3.527 0.000 0.000 ٥. 102519. ٥. MN 23.698 268563. ٥. 3.527 0. MX 4.270 99.363 134095. 931.127 ٥. 3095.934 63428512. 0. SM 240260. ٥. 0. 11.727 0.376 117558. ٥. 3.527 AV MONTHLY SUMMARY (JUL) 0.000 0.000 218800. 104622. ٥. 3.527 0.

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EZDOB - BLITE SOFTWARE DEVELOPMENT INC

ENTECH ENGINEERING

8:49:38 SDL RUN 1

DOE-2.1D 6/ 7/1996

8:49:38 SDL RUN 1 DOE-2.1D 6/7/1996 EZDOE - ELITE SOFTWARE DEVELOPMENT INC ENTECH ENGINEERING READING, PA 19603 = HOURLY-REPORT EMCS STUDY FT. GEORGE G. MEADE PAGE 2- 2 H-1 -----AHU-3 AHU-3 AHU-4 AHU-3 AHU-3 AHU-2 AHIT-2 COOLING TOT HTG COOLING COOLING TOT HIG SUPPLY HEATING COOLING BLECTRIC CAPACITY RLECTRIC CAPACITY BLECTRIC CAPACITY COTT. PWR ΧW BTU/HR BTU/HR BTU/HR KW BTU/HR XW BTU/HR ----(47) ---- (70) ----(5) ---- (78) ---- (47) ---- (70) ----(5) ---- (49) MONTHLY SUMMARY (AUG) 223276. 0.000 8.360 3.527 0.000 ٥. 106643. 0. ٥. MN 23.429 260683. ٥. 3.527 129796. ٥. MX 973.451 4160.074 66221056. ٥. 31891918. 0. SM 1170.358 ٥. 3.527 ٥. 15.073 239931. ٥. 4.240 115550. AV MONTHLY SUMMARY (SEP) 3.527 106563. 0. 0.000 222863. ٥. MN 0.000 MX 7.797 22.346 254815. 129226. ٥. 3.527 ٥. ٥. 2344.857 60019304. 888.803 742.718 28648078. ٥. 0. 9.305 238172. ٥. 2.947 О. 3.527 113683. ΑV MONTHLY SUMMARY (OCT) 0.000 3.527 -194161. 0.000 226287. -113775. -118551. 107843. 3.527 0. 13.377 255239. ٥. 119915. MX -25629254. -3666964. 1241.515 56908032. 27068346. 846.479 501.268 SM -106789. 237117. -14355. 3.527 -15279. A۷ 2.089 112785. MONTHLY SUMMARY (NOV) 0.000 3.527 3.527 -194161. 0.000 234782. -151770. -156175. 112264. 0.000 -194161. 293515. ٥. 134181. MX 0.000 57965140. -2464515. -46598644. 27397674. 846.479 -194161. 0.000 241521. -9576. -10269. 3.527 114157 ΑV 0.000 MONTHLY SUMMARY (DEC) 0.000 -194161. 3.527 0.000 234782. -170338. 112264. -175380. MN -17. -9820738. 113907. 3.527 888.803 -194161. 0.000 245606. -17. 0.000 MX -48928576. 59216316. -9481578. 0.000 28295804. -194161. 0.000 234985. -37625. -38971. 3.527 112285. ΑV 0.000 YEARLY SUMMARY -182275. 3.527 - -194161. 0.000 215495. -177133. 102519. 0.000 8.360 MN

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ENCS STUDY 19603 FT. GEORGE G. MEADE READING, PA - HOURLY-REPORT PAGE 1- 3 H-1 AHU-5 AHU-5 AHU-5 AHU-4 AHU-4 MMODHH AHU-4 AHU-4 SUPPLY HEATING HRATING COOLING COOLING TOT HTG COOLING SUPPLY CAPACITY COIL PWR RLECTRIC CAPACITY BLECTRIC BLECTRIC CAPACITY BLECTRIC KW BTU/HR BTU/HR BTU/HR BTU/HR KW KW ---- (49) ---- (78) ---- (47) ---- (49) ---- (78) ---- (47) ---- (70) ---- ( 5) MONTHLY SUMMARY (JAN) 3.427 3.427 -188669. 0.000 228191. -354079. 7.066 -388968. 0.000 MN 7.066 -388968. 0.000 -19. -188669. 0.000 228191. -20357810. -98019952. 0.000 57504216. 0.000 -47544584. SM 863.662 228191. -80785. 7.066 -388968. 0.000 -188669. 0.000 3.427 ΑV MONTHLY SUMMARY (FEB) -188669. 0.000 228191. -349624. 7.066 -388968. 0.000 MN 3.427 3.427 -188669. 0.000 236077. -16. -14912303. 7.066 -388968. 0.000 MX 1610.985 -88684720. 781.409 -43016528. 0.000 52065000. 0.000 -65405. -388968. 0.000 228355. 0.000 -188669. ΑV 3.427 MONTHLY SUMMARY (MAR) -329375. 7.066 -388968. 0.000 0.000 223662. -188669. 3.427 3.427 MN 0.000 241269. -7. 7.066 -388968. 0.000 -188669. MX -5856586. 1950.140 -107355184. 0.000 945.916 -52072640. 0.000 63057224 -188669. 0.000 228468. -21220. 7.066 0.000 3.427 ΑV MONTHLY SUMMARY (APR) 225917. -147999. 7.066 -388968. 0.000 -188669. 0.000 MN 3.427 3.427 0.000 264847. 0. 7.066 -388968. 0.000 -188669. MX -819406. 1780.563 -98019952. 863.662 -47544584. 0.000 58400948. 0.000 0.000 231750. -3252. 7.066 0.000 -188669. ΑV 3.427 MONTHLY SUMMARY (MAY) 7.066 0.000 3.427 3.427 0. 0.000 209446. MN 13.956 260502. Ο. 7.066 ٥. 29.466 MX 1780.563 2509.513 58326024. 0. ٥. 863.662 ٥. 1160.694 7.066 4.606 231452. 9.958 3.427 AV 0. MONTHLY SUMMARY (JUN) 0.000 211743. 7.066 0.000 3.427 3.427 ٥. MN 23.018 260979. ٥. 7.066 1865.352 ٥. 47.328 MX 904.789 α. 2998 948 61645844. ٥. 0. 6244.787 7.066 233507. 3.427 ٥. 11.360 ΑV MONTHLY SUMMARY (JUL) 212658. ٥. 7.066 ٥. 0.000 3.427 3.427 ٥. 0.000 MN 7.066 23.832 253903. ٥. ٥. 49.001

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EZDOE - BLITE SOFTWARE DEVELOPMENT INC

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8:49:38 SDL RUN 1

EZDOE - ELITE SOPTMARE DEVELOPMENT INC FT. GEORGE G. MEADE DOE-2.1D 6/ 7/1996 8:49:38 SDL RUN 1 READING, PA 19603 BMCS STUDY H-1 - HOURLY-REPORT PAGE 2- 3 AHU-4 AHU-5 AHU-5 AHU-5 AHU-5 SUPPLY HEATING HEATING COOLING COOLING TOT HTG SUPPLY COOLING ELECTRIC CAPACITY BLECTRIC CAPACITY COIL PWR BLECTRIC CAPACITY BLECTRIC BTU/HR KW BTU/RR BTU/HR KW BTU/HR KW ---- (78) ---- (47) ----(70) ---- (49) ----(5) ---- (49) ---- (78) MONTHLY SUMMARY (AUG) MN 3.427 О. 0.000 217001. ٥. 7.066 0.000 3.427 ٥. 22.778 253321. ٥. 7.066 0. 46.841 SM 945.916 ٥. 4040.966 64362100. 1950.140 0. 8364.633 ΑV 3.427 0. 14.641 233196. ٥. 7.066 30.307 MONTHLY SUMMARY (SEP) 3.427 3.427 MN ٥. 0.000 216673. 0. 7.066 0.000 21.763 MX ٥. 252291. 0. 7.066 ٥. 44.718 863.662 58334852. ٥. 1780.563 ٥. 4799.470 9.104 AV 3.427 ٥. 231488. 7.066 19.046 MONTHLY SUMMARY (OCT) 3.427 MN -188669. 0.000 219910. -224627. 7.066 -388968. 0.000 MX 3.427 0. 13.146 248129. 0. -51343792. 0. 7.066 27.533 -6274902. 822.535 -24904306. 1219.089 55310256. 1695.774 2574 720 AV 3.427 -103768. 5.080 230459. -26145. 7.066 -213932. 10.728 MONTHLY SUMMARY (NOV) 3.427 228191. MN -188669. 0.000 -278733. 7.066 -388968. 0.000 MX 3.427 -188669. 0. -3257752. 0.000 285399. 7.066 -388968. 0.000 -45280556. 0.000 56347168. 1695.774 -93352336. 0.000 ΑV 3.427 -188669. 0.000 234780. -13574. 7.066 -388968. 0.000 MONTHLY SUMMARY (DEC) 3.427 3.427 MN -188669. 0.000 228191. -330882. 7.066 -388968. 0.000 -188669. 0.000 238776. -16. -15127757. 7.066 -388968. 0.000 863.662 -47544584. 0.000 57554808. 1780.563 -98019952. 0.000 ΑV 3.427 -188669. 0.000 228392. -60031. 7.066 0.000 YEARLY SUMMARY 3.427

ENTECH ENGINEERING

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10363.945

3.427

ENTECH ENGINEERING FT. GEORGE G. MEADE KMCS STUDY READING, PA PAGE 1- 4 - HOURLY-REPORT H-1 ........... \_\_\_\_\_\_ AHU-6 AHU-6 AHU-7 AHU-7 AHU-6 AHU-6 AHU-6 MMODHH AHU-5 TOT HTG SUPPLY COOLING COOLING HRATING COOLING TOT HTG SUPPLY CAPACITY COIL PWR RLECTRIC CAPACITY BLECTRIC CAPACITY COIL PWR RLECTRIC BTU/HR KW BTU/HR KW BTU/HR BTU/HR BTU/HR KW ---- (78) ----(47) ----(70) ----(5) ---- (49) ---- (49) ---- (70) ----(5) MONTHLY SUMMARY (JAN) 0.000 532162. -497673. 9.184 469216. 8.087 -445181. -409854. MN -35791. -66571272. 0.000 532162. 9.184 8.087 -445181. 469216. -20. 2314.437 -26948602. 2037.887 -112185680. 0.000 134104824. SM 118242448. 8.087 532162. 0.000 469216. -106939. -445181. ΑV MONTHLY SUMMARY (FEB) 532162. -493149. 9.184 -405145. 8.087 -445181. 0.000 469216. MN 0.000 551958. -20. 9.184 -445181. 487368. -16. -18976794. 8.087 MX -49481696. -101501328. 0.000 121426232. 2094.015 1843.803 107078592. -217025. 9.184 -83232. 8.087 -445181. 0.000 532571. λV 469643. MONTHLY SUMMARY (MAR) -457527. 9.184 522703. -367909. 8.087 -445181. 0.000 460661. MN 9.184 563698. 0.000 498176. -7. 8.087 -445181. MX 147091488. -32742656. 0.000 2534 859 -122870032. -7454486. 2231.972 129726664. -118633. 9.184 -445181. 0.000 532940. -27009. AV 470024. MONTHLY SUMMARY (APR) -404122. 9.184 8.087 -445181. 0.000 526859. -156510. MN 464540. 9.184 0.000 623112. 549087. 0. 8.087 -445181. MX -11087442. -1103932. -112185680. 0.000 136416784. 2314.437 2037.887 120387984. -43998. 9.184 541336. 8.087 -445181. 0.000 -4381. AV 477730. MONTHLY SUMMARY (MAY) ٥. 9.184 8.087 ٥. 0.000 488446. MN 430671. 9.184 33.056 605018. Ο. 8.087 0. 535383. MX 2777.922 135878848. ٥. 2314.437 2037.887 119884328. 0. 539202. 0. 9.184 ٥. 8.087 ٥. 11.023 ΔV 475731. MONTHLY SUMMARY (JUN) 0. 9.184 494338. 435792. 8.087 0. 0.000 MN 606143. 9.184 53.753 Q. Ο. 536264. 8.087 ΜX 0. 7123.375 143485872 0. 2424.648 2134.929 SM 126690568. 0. ٥. 543507. 26.982 8.087 Ο. 479889. ΑV MONTHLY SUMMARY (JUL) 9.184 8.087 0.000 495937. 437276. ٥. ٥. MN 55.566 583714. Ο. 9.184 8.087 521802. 0. 2204.226 130803496. 0. 1940.845 0. 8595.471 SM 115503336.

35.814

ΑV

481264.

٥.

8.087

545015.

9.184

EZDOE - ELITE SOFTWARE DEVELOPMENT INC

DOE-2.1D 6/ 7/1996 8:49:38 SDL RUN 1

ENTECH ENGINEERING BZDOB - BLITE SOPTWARE DEVELOPMENT INC DOB-2.1D 6/7/1996 8:49:38 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY

		19603 LLY-REPORT	FT. GEORGE	G. MEADE		EMCS STUDY		PAGE 2-
	AHU-5	AHU-6		AHU-6	AHU-6	AHU-6	AHU-7	AHU-7
	COOLING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY BLECTRIC KW	HEATING CAPACITY BTU/HR	COOLING BLECTRIC KW	COOLING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY ELECTRIC KW
	(70)	(5)	(49)	(78)	(47)	(70)	( 5)	(49)
MONTHLY	SUMMARY (AUG)						_	
MON	446134.	0.	8.087	0. 0.	0.000	505647.	0.	9.184 9.184
MX	520600.	0.	8.087 2231.972	0.	53.123	588573.	0.	y.184
SM	132277800.	0.	2231.972	٥.	9423.399	149834976.	0.	2534.859
VA	479267.	0.	8.087	0.	34.143	542880.	0.	9.184
	SUMMARY (SEP)					504704	0	0.104
MN	445384.	0.	8.087	0.	0.000	504704.	٥.	9.104
MX		0.	8.087 8.087 2037.887 8.087	0.	50.501	125005205	0.	2214 427
	119894504.	0.	2037.887	0.	5338.379	133803290.	0.	0 104
AV	475772.	0.	8.087	0.	21.184	538910.	v.	7.104
MONTHLY	SUMMARY (OCT)				0.000	E11206	-197944	9 184
MN	452026.	-257708.	8.087 8.087	-445181.	20.000	571200.	-337344.	9.184 9.184
MX	511213.	0.	8.087 1940.845	0.	30.299	12002016	-17705574	2204 226
SM	113725536.	-8149398.	1940.845	-58763920.	2851.344	537054.	-72065.	9.184
AV	473856.	-33956.	8.087	-244850.	11.881	537054.	-/2063.	7.104
MONTHLY	SUMMARY (NOV)		8.087 8.087 1940.845	4451.03	0.000	532162	-450335	9 184
MIN	469216.	-325912.	8.087	-445181.	0.000	667197	-450555.	9 184
MX	589333.	0.	8.087	-445181.	0.000	171467488	-26999964	2204 226
	116043384.	-5326410.	1940.845 8.087	-106843504.	0.000	547765	-112500	9.184
VA	483514.	-22193.	8.087	-445181.	0.000	547765.	-112500.	7.204
	SUMMARY (DEC)				2 200	522162	-466143.	9.184
MEN	469216.	-381895.	8.087	-445181. -445181.	0.000			
MX	493473	-16.	8.087	-445181.			-57160604.	
	118369656.	-21143076.	2037.887	-112185680.	0.000		-226828.	
VA		-63901.	8.087	-445181.	0.000	332632.	-226525.	3.104
YBARLY	SUMMARY					409445	-407677	9 194
MIN	430671.	-409854.	8.087 8.087	-445181.	0.000	488446.	-47/0/3.	9.184 9.184
MX	589333.	0.	8.087	0.	55.566	16204337.	261770167	
	1437824896.	-89102688.	24454.646			1029432704.	-261339152.	9.184
AV	475471.	-29465.	8.087	-240257.	11.941	538834.	-86422.	9.184

H-1	real	DING,	PA - HOUR	ERING 19603 Ly-Report	EZDOR - ELI' FT. GEORGE	DEVELOPMENT	DOE-2.1D S STUDY	6/ 7/1996	8:49:38	RUN 1
MMODE	CH.	AHU-7		AHU-7	ARU-7					
		HEATING	;	COOLING	COOLING					
		CAPACIT	ΓY	BLECTRIC	CAPACITY					
		BTU/HR		X.M.	BTU/HR					
		(78	3)	(47)	(70)					
MONT	THLY	SUMMARY	(JAN)							
1	MN	-5055	594.	0.000	588302.					
,	MX.	-5055	594.	0.000	588302.					
	SM	-1274096	596.	0.000	148252240.					
1	AV	-505	594.	0.000	588303.					
MON	THLY	SUMMARY	(FEB)							
1	MIN	-505!	594.	0.000	588302.					
	MX	-505	594.	0.000	599212.					
	SM	-115275	440.	0.000	134160864.					
	AV	-505	594.	0.000	588425.					
MON	THLY	SUMMARY	(MAR)							
1	MON	-505	594.	0.000	573735.					
i	MX	-505	594.	0.000	614393.					
		-139543		0.000	162390208.					
	AV	-505			588370.					
MON	THLY	SUMMARY	(APR)							
	MN	-505		0.000	579526.					
	MX		594.	0.000	664917.					
		-127409			149355760.					
	AV	-505		0.000	592682.					
MON	THLY	SUMMARY	(MAY)							
	MN		0.	0.000	539975.					
	MX		0.	31.198	654487.					
	SM		0.	2146.247	150262032.					
	AV		٥.	8.517	596278.					
MON	THLY	SUMMARY	(JUN)							
	MN		٥.	0.000	545604.					
	MX		0.	58.998	668065.					
	SM		٥.	6868.215	158569856.					
	AV		٥.	26.016	600643.	,				
MON	(THL)	Y SUMMARY	(JUL)							
	MN		0.	0.000	548255.					
	MX		0.	61.095	645412.					
	SM		0.	8671.690	144714400.					
	AV		٥.	36.132	602977.					

	ING.	PA	RING 19603 LY-REPORT	EZDOB - BLITE FT. GEORGE G.	SOFTWARE MEADE	DEVELOPMENT	INC	EMCS	DOB-2.1D STUDY	6/	7/1996	8:49:3	8 SDI	
	AHU-7		ARU-7	AHU-7			••••							
	HRATING		COOLING	COOLING										
	CAPACITY		ELECTRIC	CAPACITY										
	BTU/HR		KM	BTU/HR										
	(78)		(47)	(70)										
MONTHET V	SUMMARY (	AUG)												
MN		0.	0.000	558334.										
MOX		0.	58.273											
SM		0.		165837232.										
AV		٥.	33.864											
	SUMMARY (			556998.										
MN		0.	0.000											
MX		٥.	55.176											
SM		0.	4968.137											
AV		О.	19.715	595711.										
MONTHLY	SUMMARY (	OCT)												
MIN	-50559	4.	0.000											
MX		0.	26.538	634157.										
SM	-6673841	2.	2395.775	142327792.										
AV	-27807		9.982	593032.										
MONTTHT.Y	SUMMARY (	NOV)												
MN	-50559		0.000	588302.										
MOX	-50559			724427.										
	-12134256			144583168.										
AV	-50559		0.000	602430.										
MONETELT V	SUMMARY (	וחצכו												
MN	-50559		0.000	588302.										
MX	-50555			604343.										
	-12740969		0.000	148304384.										
•	-50559		0.000	588509.										
AV	-50553	74.	0.000	200000										
•	SUMMARY			539975.										
MIN	-50559		0.000											
MDX			61.095											
SM	-8251294			1798877056.										
AV	-2728	60.	11.374	594867.										

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 FT. GEORGE G. MEADE ENCS STUDY
REPORT- PV-A EQUIPMENT SIZES

WEATHER FILE- BALTIMORE, MD

NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER
EQUIPMENT SIZE INSTD AVAIL (MBTU/H) AVAIL

HW-BOILER 2.500 2 2

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/7/1996 8:49:38 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY WEATHER FILE- BALTIMORE, MD

							NERGY	,				•	SOURCE
					S .	LTK K	NERG	•				•	
	2	3	4	5	6	7	8	9	10	11	12	13 •	14
HTMOM	TOTAL HEAT LOAD	TOTAL COOLING LOAD	TOTAL BLECTR LOAD	RCVRED ENERGY	WASTED RCVRABL ENERGY	FUEL INPUT COOLING	BLEC INPUT COOLING	FUEL INPUT HEATING	BLBC INPUT HEATING	PUBL INPUT	TOTAL FUBL INPUT	TOTAL SITE ENERGY	SOURCE
JAN	316.0	0.0	270.8 79.3B	0.0	0.0	0.0	0.0 0.08	469.4	31.6 9.38	0.0	469.4	740.2	1282.7
PEB	262.1	0.0	243.3 71.28	0.0	0.0	0.0	0.0 0.0E	390.1	27.3 8.0E	0.0	390.1	633.4	1120.7
MAR	164.7	0.0	276.7 81.08	0.0	0.0	0.0	0.0 0.02	259.1	25.2 7.48	0.0	259.1	535.8	1090.0
APR	97.7	0.0	251.4 73.6B	0.0	0.0	0.0	0.0E	157.9	20.5 6.0E	0.0	157.9	409.3	912.8
MAY	0.0	0.0	301.4 88.3B	0.0	0.0	0.0	0.0E	0.0	0.0B	0.0	0.0	301.4	905.1
NUL	0.0	0.0	359.0 105.2B	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0B	0.0	0.0	359.0	1078.2
JUL	0.0	0.0	381.8 111.8B	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.08	0.0	0.0	381.8	1146.4
AUG	0.0	0.0	405.5 118.8E	0.0	0.0	0.0	0.0 0.0B	0.0	0.0 0.0E	0.0	0.0	405.5	1217.6
SEP	0.0	0.0	333.3 97.68	0.0	0.0	0.0	0.0 0.0B	0.0	0.0 0.0E	0.0	0.0	333.3	1000.8
OCT	73.3	0.0	298.6 87.4B	0.0	0.0	0.0	0.0 0.0B	116.5	12.3 3.68	0.0	116.5	415.1	1013.1
NOV	108.4	0.0	243.9 71.48	0.0	0.0	0.0	0.0 0.0E	170.0	20.4 6.0B	0.0	170.0	413.9	902.5
DEC	240.6	0.0	265.1 7 <b>7</b> .68	0.0	0.0	0.0	0.0E	364.1	28.3 8.3B	0.0	364.1	629.2	1160.2
	1262.8	0.0	3630.7 1063.48	0.0	0.0	0.0	0.0 0.0E	1927.1	165.7 48.5B	0.0	1927.1	5557.9	12830.3

NOTE -- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES FOLLOWED BY E ARE IN MWH (THOUSANDS OF KWH)

МО	UTILITY-	BLECTRICITY	NATURAL-GAS
	TOTAL (MBTU)	270.819	469.414
JAN	PEAK (KBTU)	1007.105	2498.120
	DY/HR	31/17	16/ 9
	TOTAL (MBTU)	243.263	390.134
FKB	PEAK (KBTU)	1007.105	2508.963
	DY/HR	25/ 9	13/10
	TOTAL (MBTU)	276.715	259.069
MAR	PRAK (KBTU)	1007.105	2282.573
	DY/HR	22/ 9	7/ 7
	TOTAL (MBTU)	251.405	157.878
APR	PRAK (KBTU)	999.814	1792.505
	DY/HDR	11/8	10/7
	TOTAL (MBTU)	301.408	0.000
MAY	PRAK (KBTU)	1350.296	0.000
	DY/HR	26/16	31/ 1
	TOTAL (MBTU)	359.045	0.000
JUN	PEAK (KBTU)	1670.330	0.000
	DY/HR	29/16	30/ 1
	TOTAL (MBTU)	381.763	0.000
JUL	PEAK (KBTU)	1702.265	0.000
	DY/HR	25/14	31/ 1
	TOTAL (MBTU)	405.468	0.000
AUG	PRAK (KBTU)	1690.264	0.000
	DY/HR	18/17	31/ 1
	TOTAL (MBTU)	333.281	0.000
SBP	PEAK (KBTU)	1652.473	0.000
	DY/HR	2/14	30/1
	TOTAL (MBTU)	298.583	116.488
OCT	PEAK (KBTU)	1339.631	1768.079
	DY/HR	13/16	17/ 7
	TOTAL (MBTU)	243.907	170.005
NOA	PRAK (KBTU)	1007.105	2084.039
	DY/HR	28/ 9	25/ 7
	TOTAL (METU)	265.088	364.136
DEC	PEAK (KBTU)	1007.105	2309.298
	DY/HR	27/10	12/ 7
	one year	3630.745	1927.124
	USE/PEAK	1702.265	2508.963
	AAA3\acu	1/42.203	2500.505

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/7/1996 8:49:38 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE ENCS STUDY
REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD

HEATING LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
HW-BOILER	1262.8	100.0
LOAD SATISFIED TOTAL LOAD ON PLANT	1262.8 1262.8	100.0
BLECTRICAL LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
BLECTRICITY	3630.7	100.0
LOAD SATISFIED TOTAL LOAD ON PLANT	3630.7 3630.8	100.0

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/7/1996 8:49:38 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-D PLANT LOADS SATISFIED WEATHER FILE- BALTIMORE, MD
(CONTINUED)

## SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
HEATING LOADS	1262.8 3630.8	1262.8 3630.7	0.000	0.000	0

ENTECH ENGINEERING EZDOE - ELITE SOFTMARE DEVELOPMENT INC DOE-2.1D 6/7/1996 8:49:38 PDL RUN 1
READING, PA 19603 PT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER FILE- BALTIMORE, MD

BQUIPMBNT	AVG MA OPER LOA RATIO (MBT	DAY	SIZE OPER (MBTU) HRS	SIZE OPER (MBTU) HRS	SIZE OPER (MBTU) HRS	SIZE OPER (MBTU) HRS	SIZE OPER (MBTU) HRS
HW-BOILER	0.107 1.9	24 2 13 10	2.500 4728				

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/7/1996 8:49:38 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE ENCS STUDY
REPORT- PS-I EQUIPMENT LIFE CYCLE COSTS WEATHER FILE- BALTIMORE, MD

E Q U I P M E N T T O T A L S NOMINAL SIZE (MBTU) HW-BOILER 2.500

NOMINAL SIZE (MBTU)
NUMBER INSTALLED
FIRST COST (KS)
ANNUAL COST (KS)
CYCLICAL COST (KS)
----TOTAL---(KS)

EQUIPMENT TOTAL 140.6 131.1 131.1 4.2 4.2 5.4 5.4

ENTECH ENGINEERING EZDOE - ELITE SOFTMARE DEVELOPMENT INC DOE-2.1D 6/7/1996 8:49:38 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE WEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE METU - ELECTRICITY NATURAL-GAS CATEGORY OF USE SPACE HEAT 85.31 1927.11 573.91 SPACE COOL 597.38 0.00 HVAC AUX DOM HOT WTR 0.00 0.00 0.00 0.00 AUX SOLAR LIGHTS 1721.75 0.00 0.00 VERT TRANS 0.00 MISC BQUIP 652.34 0.00 1927.11 3630.69 TOTAL

TOTAL SITE ENERGY 5557.87 MBTU 64.2 KBTU/SQFT-YR GROSS-AREA 64.2 KBTU/SQFT-YR NET-AREA TOTAL SOURCE ENERGY 12830.26 MBTU 148.1 KBTU/SQFT-YR GROSS-AREA 148.1 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 46.2
PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.0

NOTE ELECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

HOURLY DATA FILE 2FROM PROG 3

REA HRLY-1	ENTECH ENGINE DING, PA = HOUR	ERING 19603 LY-REPORT	PT. GEORGE G.	SOFTWARE DEVELOPMEN MEADE	II INC	EMCS STUDY	6/ //1996	8:49:38 PDL PAGE	
	HW-BOILE	HM-BOILE	HW-BOILE						
MEDDHH			R						
	R	R							
	LOAD	ELECTRIC	PUBL						
		USE	USE						
	BTU/HR	BTU/HR	BTU/HR						
	( 1)	(3)	( 4)						
MONTHLY	SUMMARY (JAN)								
MIN	34703.	3054.	56709.						
MX	1914559.	55000.	2498120.						
SM	316005248.	18981616.	469414560.						
AV		25513.							
MONTHIA	Y SUMMARY (FEB)								
MN	34703.	3054.	56709.						
MX	1924474.	55000.							
		15887078.							
SM		23641.							
AV	390077.	23041.	380336.						
MONTHL	Y SUMMARY (MAR)								
MDA	34703.	3054.							
MX	1718923.	55000.	2282573.						
SM	164683552.	12574327.							
VA	221349.	16901.	348213.						
MONTHL	Y SUMMARY (APR)								
MN	34703.	3054.							
MX	1284003.	55000.	1792505.						
SM	97687128.	8256693.	157878080.						
AV	135677.	11468.	219275.						
MONTHL	Y SUMMARY (MAY)								
MN	0.	0.	0.						
MX	0.	0.	0.						
SM	0.		0.						
AV	0.	0.	0.						
MONTHL	Y SUMMARY (JUN)								
MIN	0.		0.					=	
MX	0.	0.	0.						
SM	٥.	0.	٥.						
AV	0.	0.	0.						
MONTHL	Y SUMMARY (JUL)								
MN			0.						
MIX		٠. ٥.	٥.						
SM	0.		0.						
AV	0.	ō.	0.						
AV	u.	٠.	٠.						

	DING,	PA	RING 19603	EZDOE - ELIT FT. GEORGE G		DRARFOLMEN	IT INC	STUDY	9, 7,	1996	0:49:3		
RLY-1			Y-REPORT					 				PAGE	2-
	HW-BOIL		HW-BOILE	HW-BOILE									
	R		R	R									
	LOAD		ELECTRIC	FUEL									
			USE	USE									
	BTU/HR		BTU/HR	BTU/HR									
	( 1)	)	(3)	( 4)									
MONTHLY	SUMMARY	(AUG)											
MIN		٥.	0.	0.									
MX		٥.	0.	0.									
SM		0.	0.	0.									
AV		0.	0.	0.									
MONTHLY	SUMMARY	(SEP)											
MON		0.	٥.	٥.									
MX		0.	0.	0.									
SM		0.	0.	0.									
λV		0.	٥.	٥.									
	SUMMARY												
MON			0.	0. 1768079.									
MX		667.											
SM	73277	624.		116488072.									
VA	98	491.	7818.	156570.									
	SUMMARY												
	34			56709.									
MX		120.	55000.										
	108425			170005072.									
AV	150	591.	11327.	236118.									
	SUMMARY			56800									
			3054.	56709.									
MX		031.	55000.	2309298.									
SM				364136960.									
ΑV	323	406.	21028.	489431.									
	SUMMARY		_										
MIN		0.	0.		_								
MX	1924	474.	55000.	2508963.									
			85316760.	1927127552.									
AV	144	158.	9739.	219992.									

R <b>EA</b> I	DING, PA	EERING 19603 ELY-REPORT	EZDOE - EL PT. GEORGE	ITE SOFTWARE D	EVELOPMENT INC	DOB-2.	1D 6/7/1996	9:43:16 SDL RUP PAGE 1-
<b>₽</b> 4DDHH	AHU-1	AHU-1	AHU-1	AHU-1	AHU-1	AHU-2	AHU-2	AHU-2
	TOT HTG COIL PWR BTU/HR	SUPPLY BLECTRIC KW	HEATING CAPACITY BTU/HR	COOLING BLECTRIC KW	COOLING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY BLECTRIC KW	HEATING CAPACITY BTU/HR
	( 5)	(49)	(78)	(47)	(70)	(5)	(49)	(78)
MONTHLY	SUMMARY (JAN)							
MN	-98804.	1.819	-100150.	0.000	112264.	-98804.	1.819	-100150.
MX	-26860.	1.819	-100150.	0.000	112264.	-26860.	1.819	-100150.
SM	-15609543.	458.451	-25237706.	0.000	28290524.	-15609543.	458.451	-25237706.
AV	-61943.	1.819	-100150.	0.000	112264.	-61943	1.819	-100150.
MONTHLY	SUMMARY (FEB)							
MN	-98368.	1.819	-100150.	0.000	112264.	-98368.	1.819	-100150.
MX	-31706.	1.819	-100150.	0.000	112264.	-31706.	1.819	-100150.
SM	-15970181.	414.789	-22834114.	0.000	25596188.	-15970181.	414.789	-22834114.
AV	-70045.	1.819	-100150.	0.000	112264.	-70045.	1.819	-100150.
MONTHLY	SUMMARY (MAR)							
MN	-96537.	1.819	-100150.	0.000	109484.	-96537.	1.819	-100150.
MX	-28203.	1.819	-100150.	0.000	115554.	-28203.	1.819	-100150.
SM	-18141856.	502.113	-27641298.	0.000	30978030.	-18141856.	502.113	-27641298.
AV	-65731.	1.819	-100150.	0.000	112239.	-65731.	1.819	-100150.
	SUMMARY (APR)							
MIN	-95719.	1.819	-100150.	0.000	105514.	-95719.	1.819	-100150.
MX	-16324.	1.819	-100150.	0.000	118746.	-16324.	1.819	-100150.
SM	-13707303.	458.451	-25237706.	0.000	28321952.	-13707303.	458.451	-25237706.
AV	-54394.	1.819	-100150.	0.000	112389.	-54394.	1.819	-100150.
	SUMMARY (MAY)					_		
MD4	0.	1.819	0.	0.000	103042.	0.	1.819	0.
MX	٥.	1.819	٥.	0.000	126379.	٥.	1.819	0.
SM	٥.	458.451	0.	0.000	28568482.	0.	458.451	0.
AV	0.	1.819	٥.	0.000	113367.	0.	1.819	٥.
	SUMMARY (JUN)		•	0.000	102519.	0.	1.819	٥.
MIN	0.	1.819	0. 0.	3.863	134054.	0.	1.819	ŭ. ŭ.
MIX	0.	1.819			31053406.	0.	480.282	٥.
SM AV	0. 0.	480.282 1.819	0. 0.	84.674 0.321	117627.	0.	1.819	0.
MONTHEE	( SUMMARY (JUL)							
MN	0.	1.819	0.	0.000	104622.	0.	1.819	0.
MIX	0.	1.819	0.	6.710	139393.	0.	1.819	o.
	0.	436.620	0.	664.173	28496332.	0.	436.620	Ö.
SM			0.	2.767	118735.	0.	1.819	0.
ΑV	٥.	1.819	u.	4.767	110/33.	u.	1.619	٠.

DOB-2.1D 6/ 7/1996 9:43:16 SDL RUN 1 EZDOE - ELITE SOFTWARE DEVELOPMENT INC ENTECH ENGINEERING EMCS STUDY READING, PA 19603 # HOURLY-REPORT 19603 FT. GEORGE G. MEADE PAGE 2- 1 -----\_\_\_\_\_ AHU-2 AHU-1 AHU-1 AHU-1 AHU-1 AHU-2 AHU-2 AHU-1 COOLING COOLING TOT HTG SUPPLY HRATING HRATING STIPPLY TOT HTG CAPACITY BLECTRIC CAPACITY COIL PWR BLECTRIC CAPACITY BLECTRIC COIL PWR KW BTU/HR BTU/HR BTU/HR BTU/HR KW BTU/HR ----(78) ---- (47) ---- (70) ---(5) ---- (49) ---- (78) ----(49) ----(5) MONTELY SUMMARY (AUG) 1.819 1.819 0. 0.000 106633. ٥. 1.819 ٥. ٥. ٥. 8.417 129622. ٥. 1.819 Ο. MX 31887028. 502.113 0. 1194.629 502.113 ο. 4.328 115533. ٥. 1.819 ٥. 1.819 Ο. ΑV ٥. MONTHLY SUMMARY (SEP) 0.000 ٥. 106559. ٥. 1.819 ٥. ٥. 1.819 1.819 7.804 128974. ٥. 1.819 ٥. ٥. MX 458.451 458.451 ٥. 789.149 28657166. 0. SM 3.132 113719. 1.819 ٥. AV ٥. MONTHLY SUMMARY (OCT) 0.000 107843. -58879. 1.819 -100150. -100150. -58879. 1.819 5.349 119968. О. 1.819 ٥. 1.819 ٥. MX 0. -13219748. -1918350. 436.620 -13219748. 541.759 27072690 436.620 -1918350. SM -55082. 112803. -7993. 1.819 -55082. 2.257 -7993. 1.819 AV MONTHLY SUMMARY (NOV) 1.819 -100150. 112264. -83024. -83024. 1.819 -100150. 0.000 MN 0.000 134181. -13. 1.819 -100150. -100150. ΜX -13. 1.819 -2699061. -2699061. 436.620 -24035910. 0.000 27397676. 436.620 -24035910. SM 114157. -11246. 1.819 0.000 -11246. 1.819 -100150. A۷ MONTHLY SUMMARY (DEC) -100150. -96462. -100150. 0.000 112264. -96462. 1.819 1.819 0.000 113909. -5315. 1.819 -100150. -100150. 1.819 MX -5315. -25237706. -9479130. 458.451 -25237706. 0.000 28295810. 458.451 -9479130. SM -100150. 112285. -37616. 1.819 0.000 AV 1.819 -100150. YEARLY SUMMARY 0.000 102519. -98804. 1.819 -100150. -98804. -100150. 1.819 8.417 139393. 0. -77525424. 1.819 ٥. 1.819 Ο. MX ٥. -163444192. -77525424. 5501.409 -163444192. 3274.385 344615296 5501.409 SM 1.819 -54049. 1.083 113960. -25637. -54049. -25637. 1.819

ENTECH ENGINEERING EZDOB - ELITE SOFTMARE DEVELOPMENT INC DOB-2.1D 6/7/1996 9:43:16 SDL RUN 1
BRADING. PA 19603 FT. GEORGE G. MEADE EMCS STUDY

	DING, PA	19603	FT. GEORGE	G. MEADE		EMCS STUDY			
H-1	= HOU	RLY-REPORT						PA	GE 1- 2
MACODKH	AHU-2	AHU-2	AHU-3	AHU-3	AHU-3	AHU-3	AHU-3	AHU-4	
	COOLING	COOLING	TOT HTG	SUPPLY	HEATING	COOLING	COOLING	TOT HTG	
	ELECTRIC	CAPACITY	COIL PWR	BLECTRIC	CAPACITY	KLECTRIC	CAPACITY	COIL PWR	
	KW	BTU/HR	BTU/HR	KM	BTU/HR	KW	BTU/HR	BTU/HR	
	(47)	(70)	(5)	(49)	(78)	(47)	(70)	(5)	
MONTHLY	SUMMARY (JAN)								
MIN	0.000	112264.	-185407.	3.527	-194161.	0.000	234782.	-180246.	
MX	0.000	112264.	-20.	3.527		0.000	234782.	-20.	
SM	0.000	28290524.	-12728196.	888.803	-48928576.	0.000	59164984.	-12279444.	
VA	0.000	112264.	-50509.	3.527	-194161.	0.000	234782.	-48728.	
MONTHLY	SUMMARY (PRB)								
MIN	0.000	112264.	-180963.	3.527	-194161.	0.000	234782.	-175858.	
MX	0.000	112264.	-17.	3.527	-194161.	0.000	243000.	-17.	
SM	0.000	25596188.	-9314552.	804.155	-44268712.	0.000	53569300.	-9033797.	
ΑV	0.000	112264.	-40853.	3.527	-194161.	0.000	234953.	-39622.	
MONTHLY	SUMMARY (MAR)								
MN	0.000	109484.	-176171.	3.527	-194161.	0.000	230121.	-170248.	
MX	0.000	115554.	-9.	3.527		0.000	248295.	-9.	
SM	0.000	30978030.	-3994057.	973.451	-53588440.	0.000	64878984.	-3864896.	
AV	0.000	112239.	-14471.	3.527	-194161.	0.000	235069.	-14003.	
MONTHLY	SUMMARY (APR)								
MIN	0.000	105514.	-84801.	3.527	-194161.	0.000	232442.	-82925.	
MX	0.000	118746.	0.	3.527	-194161.	0.000	272634.	٥.	
SM	0.000	28321952.	-552051.	888.803	-48928576.	0.000	60097972.	-553431.	
VA	0.000	112389.	-2191.	3.527	-194161.	0.000	238484.	-2196.	
MONTHLY	SUMMARY (MAY)								
MIN	0.000	103042.	0.	3.527	0.	0.000	215495.	0.	
MX	0.000	126379.	0.	3.527	٥.	14.468	268083.	0.	
SM	0.000	28568482.	0.	888.803	0.	1227.182	60013592.	0.	
VA	0.000	113367.	0.	3.527	٥.	4.870	238149.	0.	
	SUMMARY (JUN)								
MN	0.000	102519.	0.	3.527	0.		217514.	0.	
MX	3.863	134054.	0.	3.527	0.	23.697	268551.	0.	
SM	84.674	31053406.	0.	931.127	0.		63425572.	0.	
AV	0.321	117627.	٥.	3.527	٥.	11.771	240248.	0.	
MONTHL	Y SUMMARY (JUL)								
MN	0.000	104622.	0.	3.527	0.		218800.	0.	
MX	6.710	139393.	0.	3.527	0.		261276.	0.	
SM	664.173	28496332.	0.	846.479	0.		57806224.	0.	
AV	2.767	118735.	0.	3.527	٥.	15.832	240859.	0.	

EZDOE - ELITE SOFTWARE DEVELOPMENT INC FT. GEORGE G. MEADE DOE-2.1D 6/ 7/1996 9:43:16 SDL RUN 1 ENTECH ENGINEERING EMCS STUDY PA 19603 READING, PAGE 2- 2 H-1 - HOURLY-REPORT AHU-2 AHU-2 AHU-3 AHU-3 AHU-3 AHU-3 AHU-3 AHU-4 SUPPLY HEATING COOLING COOLING TOT HTG COOLING TOT HTG COOLING CAPACITY COIL PWR BLECTRIC CAPACITY BLECTRIC CAPACITY COIL PWR BLECTRIC BTU/HR BTU/HR BTU/HR BTU/HR KW BTU/HR XM. ---- (70) ----(5) ----(49) ---- (78). ---- (47) ---- (70) ----(5) ---- (47) MONTRLY SUMMARY (AUG) 3.527 106633. ٥. 0.000 223275. 0.000 8.417 MN 129622. 0. 3.527 0. 23.429 260682. ٥. 4141.185 973.451 66234000. SM 1194.629 31887028. ٥. 0. 239978. 115533. О. 4.328 ΑV MONTHLY SUMMARY (SEP) 0.000 222851. 106559. 0. 0.000 7.804 MN 128974. ٥. 3.527 ٥. 22.343 254819. ٥. MX 60021720. 28657166. ٥. 888.803 ٥. 2348.402 ٥. 3.527 ٥. 0. ΑV 3.132 113719. MONTHLY SUMMARY (OCT) 0.000 3.527 -194161. 0.000 226538. -108132. 107843. -113042. 255243. 3.527 119968. ٥. MX 5.349 -25629254. -3569131. -3347182 27072690. 846.479 1283.699 56907644. SM 541.759 -106789. 237115. -13947. 2.257 112803. -14871. 3.527 5.349 MONTHLY SUMMARY (NOV) 0.000 0.000 234782. -152206. 112264. -156633. 3.527 -194161. 3.527 -194161. 0.000 293515. MΧ 0.000 134181. 0. -2446146. -2280467 -46598644. 0.000 27397676. 846.479 0.000 57965476 SM ΑV 0.000 114157. -10192. 3.527 -194161. 0.000 241523. -9502. MONTHLY SUMMARY (DEC) 0.000 0.000 234782. -171890. -194161. -177129. 3.527 112264. -17. -9779784. -194161. 0.000 245625. -17. -9446874. 113909. 0.000 MX 0.000 28295810. 888.803 -48928576. 0.000 59216500. 234986. -37488. -38809. -194161. 0.000 AV 0.000 112285. 3.527 YEARLY SUMMARY ó.000 -185407. 3.527 -194161. 102519. MN 293515. 3.527 0. 24.521 ٥. 8.417 139393. MX -42383920. -316870784. -40806088. 15907.609 719301952. 10665.638 3274.385 344615296. 1.083 3.527 113960. -14016. ħΨ

ENTECH ENGINEERING EZDOE - ELITE SOFTMARE DEVELOPMENT INC DOE-2.1D 6/7/1996 9:43:16 SDL RUN 1
READING. PA 19603 PT. GEORGE G. MEADE EMCS STUDY

	DING, PA	19603	FT. GEORGE	G. MEADE		EMCS STUDY		•	MGR 1- 3
H-1	- HOT	RLY-REPORT							
MHODHH	AHU-4	AHU-4	AHU-4	AHU-4	AHU-5	AHU-5	AHU-5	AHU-5	
	SUPPLY	HEATING	COOLING	COOLING	TOT HIG	SUPPLY	HEATING	COOLING	
	BLECTRIC	CAPACITY	BLECTRIC	CAPACITY	COIL PWR	BLECTRIC	CAPACITY	BLECTRIC	
	KM	BTU/HR	KM	BTU/HR	BTU/HR	KW	BTU/HR	KM	
	(49)	(78)	(47)	(70)	( 5)	(49)	(78)	(47)	
MONTHLY	SUMMARY (JAN)	)							
MIN	3.427	-188669.	0.000	228191.	-366964.	7.066	-388968.	0.000	
MX	3.427	-188669.	0.000	228191.	-19.	7.066	-388968.	0.000	
SM	863.662	-47544584.	0.000	57504216.	-20277076.	1780.563	-98019952.	0.000	
AV	3.427	-188669.	0.000	228191.	-80465.	7.066	-388968.	0.000	
MONTHLY	SUMMARY (FEB	)							
MN	3.427	-188669.	0.000	228191.	-357765.	7.066	-388968.	0.000	
MX	3.427	-188669.	0.000	236118.	-16.	7.066	-388968.	0.000	
SM	781.409	-43016528.	0.000	52065280.	-14875205.	1610.985	-88684720.	0.000	
AV	3.427	-188669.	0.000	228356.	-65242.	7.066	-388968.	0.000	
MONTHLY	SUMMARY (MAR							0.000	
MN	3.427	<b>-188669</b> .	0.000	223662.	-3 <b>31696</b> .	7.066	-388968.		
MX	3.427	-188669.	0.000	241295.	-7.	7.066	-388968.	0.000	
SM	945.916	-52072640.	0.000	63057412.	-5749768.	1950.140	-107355184.	0.000	
AV	3.427	-188669.	0.000	228469.	-20832.	7.066	-388968.	0.000	
MONTHLY	Y SUMMARY (APR						200050		
MM	3.427	-188669.	0.000	225917.	-142724.	7.066	-388968.	0.000	
MX	3.427	-188669.	0.000	264850.	0.	7.066	-388968.	0.000	
SM	863.662	-47544584.	0.000	58401624.	-814750.	1780.563	-98019952.	0.000	
AV	3.427	-188669.	0.000	231752.	-3233.	7.066	-388968.	0.000	
	Y SUMMARY (MAY			*****	0.	2.000	0.	0.000	
MN	3.427	0.	0.000	209446.	0.	7.066 7.066	0.	29.393	
MX	3.427	٥.	13.929	260491.		1780.563	0.	2549.937	
SM	863.662	٥.	1182.604	58330816.	0. 0.	7.066	0.	10.119	
AV	3.427	٥.	4.693	231471.	0.	7.066	٠.	10.119	
	Y SUMMARY (JUN			211739.	٥.	7.066	0.	0.000	
MIN	3.427	0.	0.000		0.	7.066	0.	47.329	
MX	3.427	0.	23.017	260967.	0.	1865.352	0.	6271.426	
SM	904.789	0.	3006.874	61645384. 233505.	0.	7.066	0.	23.755	
ΑV	3.427	0.	11.390	233505.	υ.	7.066	0.	23.733	
	Y SUMMARY (JUI		0.000	212658.	0.	7.066	0.	0.000	
MN	3.427	0.	0.000	253901.	0.	7.066	0.	48.996	
MX	3.427	0.	23.829 3667.071	253901. 56193508.	0.	1695.774	0.	7564.436	
SM	822.535	0.	15.279	234140.	0.	7.066	0.	31.518	
AV	3.427	0.	13.279	234140.	٥.	7.000	٠.	32.340	

EZDOE - ELITE SOPTWARE DEVELOPMENT INC PT. GEORGE G. MEADE DOE-2.1D 6/ 7/1996 9:43:16 SDL RUN 1 ENTECH ENGINEERING EMCS STUDY READING, PA 19603 - HOURLY-REPORT AHU-5 AHU-4 AHU-4 AHU-4 AHU-5 AHU-5 AHU-5 AHU-4 COOLING TOT HTG SUPPLY HEATING COOLING HEATING COOLING SUPPLY BLECTRIC CAPACITY BLECTRIC BLECTRIC CAPACITY BLECTRIC CAPACITY COIL PWR BTU/HR KW. BTU/HR KW KW BTU/HR BTU/HR ---- (70) ---(5) ---- (49) ---- (78) ---- (47) ----(78) ---- (49) MONTHLY SUMMARY (AUG) .\_ (AUG 3.427 217000. 7.066 0. 0.000 ٥. 0.000 MON 3.427 22.778 253325. ٥. 7.066 ٥. 46.841 мх 1950.140 8331.557 ٥. 4049.351 64359268. 0. ٥. 233186. 0. AV 3.427 ٥. 14.672 MONTHLY SUMMARY (SEP) 3.427 7.066 216681. ٥. ٥. 0.000 7.066 0. 44.711 21.766 252291. MX 0. 58336036. Ο. 1780.563 0. 4806.788 863.662 SM 19.075 0. 7.066 0. AV 3.427 ٥. 9.133 231492. MONTHLY SUMMARY (OCT) 3.427 7.066 -388968. 0.000 -188669. 0.000 220149 -212039. 7.066 27.631 0. 13.202 248128. MX 3.427 Ο. -6011561. -51343792. 822.535 -24904306. 55311240. 1695.774 2660.644 SM 7.066 -213932. 11.086 -103768. 5.248 230464. -25048. AV MONTHLY SUMMARY (NOV) -388968. 0.000 3.427 3.427 -188669. 0.000 228191. -276301. 7.066 7.066 -388968. 0.000 285399. 0. MX -188669. -3174742. -45280556. 0.000 56347512. 1695.774 -93352336. 0.000 SM 822.535 -188669. 0.000 234781. -13228. 7.066 -388968. 0.000 ΑV MONTHLY SUMMARY (DEC) 3.427 -333383. 7.066 -388968. -188669. 0.000 228191. -16. -15036753. 7.066 -388968. 0.000 0.000 238795 MX 3.427 -188669. -47544584. 0.000 57554992 1780.563 -98019952. 0.000 SM -59670. A٧ 3.427 -188669. 0.000 228393. 3.427 -366964. -388968. 0.000 209446. -188669. 23.829 0. 7.066 ٥. 48.996 285399. MX 0. -634795904. -307907776. -65939848. 32184.787 21366.754 10363.945 15466.849 699107328. SM 7.066 3.427 -21806. ΑV -101821. 5.115 231186.

DOE-2.1D 6/7/1996 9:43:16 SDL RUN 1 ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC EMCS STUDY READING, 19603 FT. GEORGE G. MEADE PAGE 1- 4 - HOURLY-REPORT AHU-7 AHU-7 AHU-6 AHU-6 AHU-6 AHU-6 AHII-6 MMODHH AHU-5 SUPPLY HEATING COOLING COOLING TOT HTG TOT HTG SUPPLY COOLING CAPACITY COIL PWR BLECTRIC ELECTRIC CAPACITY BLECTRIC COIL PWR CAPACITY KW BTU/HR BTU/HR BTU/HR XW BTU/HR BTU/HR ---(5) ---- (49) ---- (78) ---- (47) ---- (70) ---(5) ---- (49) ---- (70) MONTHLY SUMMARY (JAN) 469216 8.087 -420924. -445181. 0.000 532162. -498448. 9.184 MN -35772. 9.184 -20. 8.087 -445181. 0.000 532162. 469216. MX 134104824. -66425276. 0.000 118242448. -26904050. 2037.887 -112185680. 0.000 532162. -263592. 9.184 469216 8.087 -445181. -106762. AV MONTHLY SUMMARY (FEB) 469216. 8.087 8.087 -445181. 0.000 532162. -493392. 9.184 -413088. -16. -445181. 0.000 552079. -20. 9.184 487522. MX -49448020. 121427280. 2094.015 -18969496. 1843.803 -101501328. 0.000 107079984. 532576. -216877. -83200. 8.087 -445181. AV 469649. MONTHLY SUMMARY (MAR) 0.000 522703. -451219. 9.184 -445181. 460670. -368848. 8.087 -445181. 0.000 563779. -12. 9.184 8.087 498286. -7. MY -32842308. 147092032. 2534.859 -7361569. 2231.972 -122870032. 0.000 129727664. SM -118994. 0.000 532942. -445181. 470028. -26672. 8.087 MONTHLY SUMMARY (APR) 0.000 526859. -404111. 9.184 464540. -158062. 8 087 -445181. 0.000 624841. 9.184 -445181. 8.087 MX 549109. 0. -11085033. 2314.437 -1122403. 2037.887 -112185680. 0.000 136483648. 120424704. SM 0.000 541602. -43988. 9.184 AV -4454. 8.087 -445181. MONTHLY SUMMARY (MAY) 9.184 Ο. 0.000 488446. 430671. ٥. 8.087 33.663 605028. 0. 9.184 8.087 ٥. MX 535353. 135877056. 2314.437 2867.693 ٥. 119890104. 2037.887 ۵. SM 539195. 0. 9.184 11.380 ΑV 475754. 0. 8.087 ٥. MONTHLY SUMMARY (JUN) 8.087 8.087 0. 494333. ٥. 9.184 435785. ٥. 53.752 606119. 0. 9.184 ٥. 536240. MX 2424.648 2134.929 ο. 7156.442 143482992. ٥. 126683928. 27.108 543496. ٥. 9.184 8.087 0. AV 479863. ٥. MONTHLY SUMMARY (JUL) ٥. 0.000 495937. ٥. 9.184 8.087 œ. 437276. 521797. 8.087 Ο. 55.560 583759. ٥. 9.184 MX 130798560. 2204.226 8594.998 Ο. 115501968. 1940.845 ٥. 8.087 35.812 544994. ٥. 9.184 ٥. ΔV 481258.

EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/ 7/1996 9:43:16 SDL RUN 1 ENTECH ENGINEERING 19603 FT. GEORGE G. MEADE KMCS STUDY READING, PA 19603 - HOURLY-REPORT PAGE 2- 4 ------AHU-6 AHU-6 AHU-6 AHU-7 AHU-7 AHU-6 AHU-6 AHU-5 HEATING COOLING COOLING TOT HTG SUPPLY TOT HTT SUPPLY COOLING CAPACITY BLECTRIC CAPACITY COIL PWR BLECTRIC COIL PWR BLECTRIC CAPACITY KW BTU/HR BTU/HR BTU/HR BTU/HR KW BTU/HR ----(5) ----(49) ---- (78) ---- (47) ---- (70) ----(5) ---- (49) ---- (70) MONTHLY SUMMARY (AUG) 8.087 9.184 446132. Ο. 0.000 505647. ٥. ٥. ٥. 53.123 588585. ٥. 9.184 8.087 520596. 0. MX 2534.859 132298496. 2231.972 ٥. 9429.646 149837072. 0. 8.087 34.165 542888. 9.184 ٥. ٥. ۸V 479342. 0 MONTHLY SUMMARY (SEP) 8.087 504704. 9.184 0.000 0. 445361. ٥. ٥. 8.087 50.501 573998. 9.184 MX 509231. 0. 2037.887 0. 5324.457 135828336. 0. 2314.437 ٥. 119900160. SM 8.087 539001. 475794. ٥. 0. 21.129 ٥. 9.184 MONTHLY SUMMARY (OCT) 8.087 -445181. 452484. 0.000 511548. -386883. 9.184 -252937. 30.535 579256. 8.087 0. 9.184 MX 511214. 0. 0. -17104040. -7855142. -58763920. 2949.240 128896496. 2204.226 1940.845 SM 113723072. 537069. -71267. 9.184 -32730. 8.087 -244850. 12.288 ΑV 473846. MONTHLY SUMMARY (NOV) 469216. -326640. 8.087 -445181 0.000 532162. -454829. 9.184 0.000 667399. 9.184 -445181. MX 589333. 0. 8.087 -1. 131464904. -5286153. 1940.845 -106843504. 0.000 -26953560. 2204.226 116048840. SM 547770. 9.184 -22026. 8.087 -445181. 0.000 -112307. AV 483537. MONTHLY SUMMARY (DEC) 469216. 0.000 532162. -476165. 9.184 -385056 8.087 -445181. -445181. 0.000 557396. -8069. 9.184 8.087 MX 493490. -16. -21050424. 2037.887 -112185680. 0.000 134228896. -56992272. 2314.437 SM 118370320. 8.087 -445181. AV 469724. -83533. 0.000 532654. -226160. 9.184 YEARLY SUMMARY 0.000 9.184 430671. -420924. 8.087 -445181. 488446. -498448. 55.560 667399. 9.184 8.087 0. ٥. MX 589333. 0. -88549232. 24454.646 -726535808. 36322.473 1629522176. -260850512. 27773.246 1437891840. SM -240257. -86260. -29282. 8.087 12.011 538863. 9.184

	ENTECH ENGIN DING, PA	19603	EZDOE - ELIT PT. GEORGE G	DEVELOPMENT	INC	DOE-2.1D STUDY	6/ 7/1996	9:43:16	
H-1		RLY-REPORT							AGE 1- 5
MMODHH		AHU-7	AHU-7			 			
		COOLING	COOLING						
	CAPACITY	BLECTRIC	CAPACITY						
	BTU/HR	XM	BTU/HR						
	(78)	(47)	(70)						
MONTHLY	SUMMARY (JAN)								
MN	-505594.		588302.						
MX	-505594.	0.000	588302.						
SM	-127409696.		148252240.						
AV	-505594.	0.000	588303.						
MONTHLY	SUMMARY (FEB)								
MIN	-505594.	0.000	588302.						
MX	-505594.	0.000	599249.						
SM	-115275440.	0.000	134161016.						
AV	-505594.	0.000	588426.						
MONTHLY	SUMMARY (MAR)								
MIN	-505594.	0.000	573735.						
MX	-505594.		614401.						
SM	-139543952.	0.000	162390240.						
AV	-505594.	0.000	588370.						
	SUMMARY (APR)								
MN	-505594.	0.000	579526.						
MX	-505594.	0.000	664926.						
	-127409696.		149355840.						
AV	-505594.	0.000	592682.						
	SUMMARY (MAY)								
MN	0.	0.000	539975.						
MIX	0.		654467.						
SM		2367.536	150274816.						
VA	0.	9.395	596329.						
	SUMMARY (JUN)								
MON	0.	0.000	545577.						
MX	0.		667936.						
SM		6899.813	158572176.						
AV	0.	26.136	600652.						
	SUMMARY (JUL)								
MIN	0.	0.000	548255.						
MIX	0.		645462.						
SM	0.	8638.538	144734224.						
AV	٥.	35.994	603059.						

	DING, PA	MERING 19603 RLY-REPORT	EZDOS - ELIT FT. GEORGE G	DEVELOPMENT		DOE-2.1D STUDY	6/	7/1996	9:	43:1	6 SDI	
	AHU-7	AHU-7	AHU-7	 	 							 
	HRATING	COOLING	COOLING									
	CAPACITY	BLECTRIC	CAPACITY									
	BTU/ER	KM	BTU/HR									
	(78)	(47)	<del>-</del> (70)									
MONTHLY	SUMMARY (AUG)											
MN	0.		558335.									
MOX	0.	58.273	652224.									
SM	٥.		165860944.									
AV	0.	33.807	600945.									
MONTHLY	SUMMARY (SEP)											
MN	0.	0.000	556999.									
MX	o.	55.176	636438.									
SM	o.		150163952.									
AV	0.											
MONTHI.Y	SUMMARY (OCT)											
MIN	-505594.		565135.									
MX	0.											
	-66738412.											
AV	-278077.	10.715	593151.									
MONTHLY	SUMMARY (NOV)											
MN	-505594.		588302.									
MX	-505594.	0.000	724427.									
SM	-121342568.	- 0.000	144583184.									
AV	-505594.	0.000	602430.									
MONTHLY	SUMMARY (DEC)											
MIN	-505594.	0.000	588302.									
MX	-505594.	0.000	604352.									
SM	-127409696.	0.000	148304416.									
AV	-505594.	0.000	588510.									
YEARLY	SUMMARY											
MN	-505594.	0.000	539975.									
MIX	0.		724427.									
	-825129472.											
AV	-272860.	11.532	594911.									

ENTECH ENGINEERING BZDOB - ELITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 FT. GBORGE G. MEADE ENCS STUDY
REPORT- PV-A EQUIPMENT SIZES MEATHER PILE- BALTIMORE, MD

NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER

E Q U I P M E N T SIZE INSTD (MBTU/H) AVAIL 
HW-BOILER

2.500 2 2

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 6/7/1996 9:43:16 PDL RUN 1
READING, PA 19603 PT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY WEATHER FILE- BALTIMORE, MD

SITE ENERGY *											SOURCE		
	2	3	4	5	6	7	8	9	10	11	12	13	14
MONTH	TOTAL HEAT LOAD	TOTAL COOLING LOAD	TOTAL BLECTR LOAD	RCVRED ENERGY	WASTED RCVRABL ENERGY	FUEL INPUT COOLING	BLEC INPUT COOLING	FUEL INPUT HEATING	BLBC INPUT HRATING	FUEL INPUT ELECT	TOTAL FUEL INPUT	TOTAL SITE ENERGY	SOURCE
JAN	276.3	0.0	269.1 78.8B	0.0	0.0	0.0	0.0 0.0E	416.5	30.3 8.9R	0.0	416.5	685.7	1224.8
FEB	229.2	0.0	241.8 70.8E	0.0	0.0	0.0	0.0 0.0E	346.1	26.2 7.78	0.0	346.1	587.9	1072.3
MAR	152.4	0.0	276.0 80.8E	0.0	0.0	0.0	0.0 0.0R	241.4	24.6 7.28	0.0	241.4	517.3	1070.2
APR	91.4	0.0	252.1 73.88	0.0	0.0	0.0	0.0 0.0E	148.3	20.1 5.9E	0.0	148.3	400.4	905.4
MAY	0.0	0.0	301.0 88.1E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0E	0.0	0.0	301.0	903.8
JUN	0.0	0.0	356.8 104.58	0.0	0.0	0.0	0.0 0.0B	0.0	0.0 0.0B	0.0	0.0	356.8	1071.4
JUL	0.0	0.0	375.7 110.0E	0.0	0.0	0.0	0.0 0.0B	0.0	0.0 0.08	0.0	0.0	375.7	1128.4
AUG	0.0	0.0	402.6 117.98	0.0	0.0	0.0	0.0 0.0B	0.0	0.0 0.08	0.0	0.0	402.6	1209.1
SBP	0.0	0.0	331.0 96.9B	0.0	0.0	0.0	0.0E	0.0	0.0 0.0B	0.0	0.0	331.0	994.0
oct	66.0	0.0	296.7 86.98	0.0	0.0	0.0	0.0 0.0B	106.3	12.0 3.5E	0.0	106.3	403.0	997.4
NOV	97.9	0.0	243.7 71.4E	0.0	0.0	0.0	0.0 0.0E	156.2	20.1 5.98	0.0	156.2	399.9	888.0
DEC	215.6	0.0	264.4 77.4B	0.0	0.0	0.0	0.0 0.0E	331.5	27.6 8.1B	0.0	331.5	595.9	1125.4
	1128.9	0.0	3611.0 1057.6E	0.0	0.0	0.0	0.0 0.0B	1746.3	160.9 47.18	0.0	1746.3		12590.1

NOTE-- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES FOLLOWED BY E ARE IN MWH (THOUSANDS OF KWH) ENTECH ENGINEERING EZDOE - ELITE SOFTMARE DEVELOPMENT INC DOE-2.1D 6/7/1996 9:43:16 FDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE ENCS STUDY
REPORT- PS-B MONTELY PEAK AND TOTAL ENERGY USE MEATHER FILE- BALTIMORE, MD

NATURAL-GAS ELECTRICITY UTILITY-TOTAL (MBTU) 269.147 416.540 JAN PEAK (KBTU) 1007.105 31/17 2463.224 31/ 7 DY/HR TOTAL (MBTU) 241.825 346.084 1007.105 25/ 9 2423.216 FEB PEAK (KBTU) 14/ 7 DY/HR 275.990 241.357 TOTAL (MBTU) 1007.105 2280.586 PRAK (KBTU) MAR DY/HR 22/ 9 252.107 148.308 TOTAL (MBTU) PEAK (KBTU) 999.805 1513.532 APR 11/8 11/ 7 300.956 0.000 TOTAL (MBTU) PRAK (KBTU) 1351.324 0.000 MAY DY/HR 6/16 31/ 1 TOTAL (MBTU) 356.773 0.000 אטע PEAK (KBTU) 1666.097 0.000 30/ 1 10/16 DY/HR 375.743 0.000 TOTAL (MBTU) 1693.110 0.000 PEAK (KBTU) JIII. 25/14 31/ 1 TOTAL (MBTU) 402.629 0.000 0.000 31/ 1 AUG PEAK (KBTU) 1690.648 DY/HR 18/17 TOTAL (MBTU) 331.013 0.000 1652.493 0.000 PRAK (KBTU) SEP DY/HR 2/14 30/ 1 296.738 106.290 TOTAL (MBTU) PEAK (KBTU) 1349.810 1725.433 OCT DY/HR 13/16 24/ 7 TOTAL (MBTU) 243.684 156.248 1007.105 28/ 9 2087.124 NOV PEAK (KBTU) 25/ 7 DY/HR TOTAL (MBTU) 264.380 331.491 1007.105 2330.328 PRAK (KBTU) DEC DY/HR 27/10 12/ 7 1746.318 ONE YEAR 3610.983 1693.110 2463.224 USB/PEAK

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-D PLANT LOADS SATISFIED

WEATHER FILE- BALTIMORE, MD

HEATING LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
HW-BOILER	1128.9	100.0
LOAD SATISFIED	1128.9	100.0
TOTAL LOAD ON PLANT	1128.9	
ELECTRICAL LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
BLECTRICITY	3611.0	100.0
	*********	*****************
LOAD SATISPIED	3611.0	100.0
TOTAL LOAD ON PLANT	3611.1	

SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
HEATING LOADS	1128.9	1128.9	0.000	0.000	0
ELECTRICAL LOADS	3611.1	3611.0	0.000	0.000	0

ENTECH ENGINEERING EZDOE - ELITE SOFTMARE DEVELOPMENT INC DOB-2.1D 6/ 7/1996 9:43:16 FDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER FILE- BALTIMORE, MD

	AVG	MAX	MON					
BQUIPMENT	OPER RATIO	LOAD (MBTU)	DAY HR	SIZE OPER (MBTU) HRS				
		•						
HW-BOILER	0.096	1.883	1 31 7	2.500 4728				

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/7/1996 9:43:16 PDL RUN 1
READING, PA 19603 PT. GEORGE G. MEADE ENCS STUDY
REPORT- PS-I EQUIPMENT LIFE CYCLE COSTS MEATHER FILE- BALTIMORE, MD

R Q U I P M B N T T O T A L S

 ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/7/1996 9:43:16 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE WEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE MBTU -	ELECTRICITY	NATURAL-GAS
CATEGORY OF USE		
SPACE HEAT	80.55	1746.31
SPACE COOL	571.77	0.00
HVAC AUX	584.51	0.00
DOM HOT WIR	0.00	0.00
AUX SOLAR	0.00	0.00
LIGHTS	1721.74	0.00
VERT TRANS	0.00	0.00
MISC BQUIP	652.34	0.00
TOTAL	3610.92	1746.31

TOTAL SITE ENERGY 5357.30 MBTU 61.9 KBTU/SQFT-YR GROSS-AREA 61.9 KBTU/SQFT-YR NET-AREA TOTAL SOURCE ENERGY 12590.11 MBTU 145.4 KBTU/SQFT-YR GROSS-AREA 145.4 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 43.7
PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.0

NOTE BLECTRICITY AND/OR FUEL USED TO GENERATE BLECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

HOURLY DATA FILE 2FROM PROG 3

REAL	ENTECH ENGIN DING, PA	19603	EZDOB - ELITE FT. GEORGE G.		EMCS ST		7/1996	9:43:1	PAGE
HRLY-1	- ROU	RLY-REPORT		 	 	 			PAGE
MMDDHH	HW-BOILE	HW-BOILE	HW-BOILE						
	R	R	R						
	LOAD	ELECTRIC USE	FUEL USE						
	BTU/HR	BTU/HR	BTU/HR						
	( 1)	(3)	( 4)						
MONTHLY	SUMMARY (JAN)								
MIN	34703.	3054.							
MX	1882698.	55000.	2463224.						
SM	276315776.	17672312.	416540992.						
AV	371392.								
MONTHLY	SUMMARY (PEB)								
MIN	34703.	3054.							
MX	1846262.	55000.	2423216.						
SM	229214032.	14753322.							
AV	341092.	21954.	515007.						
MONTHLY	SUMMARY (MAR)								
MN	34703.								
MIX	1717133.								
SM	152394224.	11935420.	241357792.						
AV	204831.	16042.	324406.						
	SUMMARY (APR)								
MIN	34703.								
MDC	1042185.								
SM	91407888.								
AV	126955.	10881.	205983.						
	SUMMARY (MAY		0.						
MN	0.		0.						
MX	0.		0.						
SM AV	0. 0.	0.	0.						
MONTHIA	SUMMARY (JUN	)							
MN	0.		٥.						
MX	0.		٥.						
SM	0.		0.						
AV.	٥.		0.						
MONTHL	Y SUMMARY (JUL								
MIN	0.	0.							
MX	0.	0.	0.						
SM	0.	0.	0.						
AV	٥.	0.	0.						

READ!	ENTECH ENGINE ING, PA	BRING 19603	EZDOE - ELIT FT. GEORGE G	DEVELOP		DOE-2. STUDY	 , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			-
HRLY-1	- HOUR	LY-REPORT		 	 		 		PA	VG I
	HW-BOILE	HW-BOILE	HW-BOILE	 	 			**		
	R	R	R							
	LOAD	BLECTRIC	FUEL							
		USE	USE							
	BTU/HR	BTU/HR	BTU/HR							
	( 1)	(3)	( 4)							
MONTHLY S	UMMARY (AUG)									
MIN	0.	0.	0.							
MX	0.	0.	0.							
SM	0.	0.	0.							
AV	0.	0.	٥.							
MONTHLY :	SUMMARY (SEP)									
MON	0.	0.	٥.							
MX	٥.	٥.	0.							
SM	0.	٥.	0.							
AV	٥.	0.	٥.							
MONTHLY	SUMMARY (OCT)									
MIN	0.	0.	٥.							
MX	1225495.	55000.	1725433.							
SM	66021264.		106289792.							
AV	88738.	7390.	142863.							
	SUMMARY (NOV)									
MN	34703.		56709.							
MDC	1543867.	55000.								
SM		7884482.	156247968.							
VA	136011.	10951.	217011.							
	SUMMARY (DEC)	3054.	56709.							
MIN	34703.									
MOX	1762030. 215616416.	14979754.								
SM AV	289807.	20134.								
VRADI.V C	UMMARY									
MN	0.	0.	0.							
MX	1882698.									
SM										
AV	128870.	9196.	199352.							

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MISETBACK TENT CONTROL, & ECONONI ZETR

FILE FTM 4552N

R! H-1	ENTECH ENGI EADING, PA - HO		EZDOE - EI FT. GEORGE		EVELOPMENT INC	DOE-2.	1D 6/7/1996	10; 3: (	SDL RUN 1
MACODHH	AHU-1	AHU-1	AHU-1	AHU-1	AHU-1	AHU-2	AHU-2	AHU-2	
	TOT HIG COIL PWR BTU/HR	SUPPLY BLECTRIC KN	HEATING CAPACITY BTU/HR	COOLING BLECTRIC KW	COOLING CAPACITY BTU/HR	TOT HTG COIL PWR BTU/HR	SUPPLY BLECTRIC KN	HEATING CAPACITY BTU/HR	
	( 5)	(49)	(78)	(47)	(70)	( S)	(49)	(78)	
MONTH	LY SUMMARY (JAN	n							
MN	-83819.	1.819	-114675.	0.000	112264.	-83819.	1.819	-114675	
MX	-21601.	1.819	-114675.	0.000	112264.	-21601.	1.819	-114675	
SM	-11202634.	458.451	-28898172.	0.000	28290524.	-11202634.	458.451	-28898172	
AV		1.819	-114675.	0.000	112264.	-44455.	1.819	-114675	•
MONTH	LY SUMMARY (FEE	1)							
MN	-90551.	1.819	-114675.	0.000	112264.	-90551.		-114675	
MX	-27892.	1.819	-114675.	0.000	112264.	-27892.	1.819	-114675	•
SM	-12216512.	414.789	-26145964.	0.000	25596188.	-12216512.	414.789	-26145964	
AV	-53581.	1.819	-114675.	0.000	112264.	-53561.	1.819	-114675	•
MONTH	LY SUMMARY (MAR	1)							
MN	-89679.	1.819	-114675.	0.000	109484.	-89679.	1.819	-114675	•
MOX	-27332.	1.819	-114675.	0.000	115623.	-27332.	1.819	-114675	
SM	-14677470.	502.113	-31650380.	0.000	30980110.	-14677470.	502.113	-31650380	
AV	-53179.	1.819	-114675.	0.000	112247.	-53179.	1.819	-114675	•
MONTH	LY SUMMARY (APR	u)							
MIN	-86891.	1.819	-114675.	0.000	105153.	-86891.	1.819	-114675	
MX	-20566.	1.819	-114675.	0.000	119580.	-20566.	1.819	-114675	
SM	-11836402.	458.451	-28898172.	0.000	28297574.	-11836402.	458.451	-28898172	
AV	-46970.	1.819	-114675.	0.000	112292.	-46970.	1.819	-114675	•
MONTH	LY SUMMARY (MAY	n							
MIN	0.	1.819	0.	0.000	103042.	0.	1.819	0.	
MX	. 0.	1.819	0.	0.000	124901.	0.	1.819	0	
SM	0.	458.451	0.	0.000	28460458.	0.	458.451	0.	
AV	o.	1.819	0.	0.000	112938.	0.	1.819	0	
MONTH	LY SUMMARY (JU	t)							
MON	0.	1.819	0.	0.000	100601.	0.	1.819	0	
MX	0.	1.819	0.	2.792	132884.	0.	1.819	0	
SM	0.	480.282	0.	61.953	30513324.	٥.	480.282	0	
AV	٥.	1.819	0.	0.235	115581.	0.	1.819	0	•
MONTH	LY SUMMARY (JUI	L)							
MN	0.	1.819	0.	0.000	102925.	0.	1.819	0.	•
MX	0.	1.819	0.	4.490	137124.	0.	1.819	0	
SM	0.	436.620	0.	517.004	27377080.	0.	436.620	0	
AV	0.	1.819	0.	2.154	114071.	0.	1.819	0	

ENTECH ENGINEERING BZDOB - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/ 7/1996 10: 3: 6 SDL RUN 1 READING, PA BOURLY-REPORT EMCS STUDY 19603 FT. GEORGE G. MEADE PAGE 2- 1 H-1 ..... AHU-2 AHU-1 AHU-1 AHU-1 AHU-1 AHU-1 AHU-2 AHU-2 SUPPLY HEATING COOLING COOLING TOT HTG SUPPLY HEATING TOT HTG BLECTRIC CAPACITY ELECTRIC CAPACITY COIL PWR BLECTRIC CAPACITY COIL PWR BTU/HR KW. BTU/HR KW BTU/HR BTU/HR KW. BTU/HR ---(5) ---- (49) ---- (78) ---- (47) ---- (70) ----(5) ---- (49) ---- (78) MONTHLY SUMMARY (AUG) 1.819 0.000 102458. ٥. 1.819 0. MN 5.650 926.793 ٥. 1.819 ٥. 136956. Ο. 1.819 ٥. 30656338. 502.113 502.113 SM ٥. ٥. 0. ٥. 3.358 1.819 111074. AV ٥. MONTHLY SUMMARY (SEP) 1.819 0.000 102427. 1.819 ٥. MN 0. 1.819 ٥. 5.730 128805. ٥. 1.819 ٥. MX SM 0. 458.451 ٥. 676.874 28136698. ٥. 458.451 0. 1.819 ٥. 2.686 111654. ٥. 1.819 ٥. ΑV 0. MONTHLY SUMMARY (OCT) -114675. 0.000 107301. -42477. 1.819 -114675. 1.819 MN -42477. 4.866 120454. 1.819 1.819 MX ٥. -15137134. -1574380. -15137134. -1574380. 436.620 595,152 27050626. 436.620 -6560. -63071. 2.480 112711. -6560. 1.819 -63071. ΑV 1.819 MONTHLY SUMMARY (NOV) -65205. -114675. 0.000 112264. -65205. -114675. 1.819 1.819 -114675. 0.000 133119. -15. -114675. 1.819 1.819 -15. MX -2061848. 436.620 -27522068. 0.000 27372160. -2061848. 436.620 -27522068. -8591. -114675. 0.000 114051. -8591. 1.819 -114675. AV 1.819 MONTHLY SUMMARY (DEC) -78847. -4641. 1.819 -114675. 0.000 112264. -78847. 1.819 -114675. MN 1.819 -114675. 0.000 114949. -4641. 1.819 -114675. ΜX -6910441. 458.451 -28898172. -6910441. 458.451 -28898172. 0.000 28298120. 1.819 -114675. 0.000 112294. -27422. 1.819 -114675. ΑV -27422.

0.000

5.730

0.919

2777.775

100601.

137124.

112774.

341029216

-90551.

-20000.

0. -60479684. 1.819

1.819

1.819

5501.409

-114675.

-61888.

-187150064

٥.

YEARLY SUMMARY

MN

MX

AV

-90551.

-20000.

0. -60479684. 1.819

1.819

1.819

5501.409

-114675.

-61888.

0. -187150064. ENTECH ENGINEERING BZDOB - BLITE SOFTMARE DEVELOPMENT INC DOB-2.1D 6/7/1996 10: 3: 6 SDL RUN 1

REAL	ENTECH ENGIN DING, PA	BERING 19603	PT. GEORGE	G. MEADE	BARTOLWENT INC	EMCS STUDY	10 6/ //1336		
H-1		RLY-REPORT						PAGE	1- 2
		AHU-2	AHU-3	AHU-3	AHU-3	AHU-3	AHU-3	AHU-4	
MENDOHIK	AHU-2	AHU-2	ABU-3	<b>A</b>	,220 3				
	COOLING	COOLING	TOT HTG	SUPPLY	HRATING	COOLING	COOLING	TOT HTG	
	BLECTRIC	CAPACITY	COIL PWR	BLECTRIC	CAPACITY	BLBCTRIC	CAPACITY	COIL PWR	
	KM	BTU/HR	BTU/HR	KW	BTU/HR	KW	BTU/HR	BTU/HR	
	(47)	(70)	( 5)	(49)	(78)	(47)	(70)	( 5)	
MONTET V	SUMMARY (JAN)								
MN	0.000	112264.	-148625.	3.527	-222322.	0.000	234782.	-144848.	
MX	0.000	112264.		3.527		0.000	472221.	-16.	
SM	0.000	28290524.		888.803	-56025148.	0.000	61956480.	-8259521.	
AV	0.000	112264.		3.527	-222322.	0.000	245859.	-32776.	
	SUMMARY (FEB)	112264.	-161605.	3.527	-222322.	0.000	234782.	-155989.	
MIN	0.000	112264.		3.527		0.000	319043.	-14.	
MX	0.000	25596188.		804.155		0.000		-6277172.	
SM	0.000	112264.	-28395.	3.527	-222322.	0.000	242684.	-27531.	
AV	0.000	112204.	-20333.	2.00					
MONTHLY	SUMMARY (MAR)					0.000	234782.	-134687.	
MIN	0.000	109484.	-139761.	3.527				-7.	
MCK	0.000	115623.		3.527			68871288.		
SM	0.000	30980110.	-2767599		-61360876. -222322.		249534.	-2676990. -9699.	
AV	0.000	112247.	-10028.	3.527	-141311.	0.000	249334.	-3633.	
MONTHLY	SUMMARY (APR	)							
MN	0.000	105153.		3.527			233790.		
MX	0.000	119580.							
SM	0.000	28297574.	-261345.			0.000		-266924. -1059.	
AV	0.000	112292.	-1037.	3.527	-222322.	0.000	264536.	-1059.	
MONTHLY	SUMMARY (MAY	)							
MIN	0.000				٥.			0.	
MIX	0.000	124901.			0.			o. o.	
SM	0.000	28460458.		888.803	0.	1267.856	62796612.	0.	
AV	0.000	112938.	0.	3.527	0.	5.031	249193.	0.	
MONTHL	Y SUMMARY (JUN	)							
MN	0.000		0.					0.	
MOX	2.792	132884.	0.	3.527	0.			0.	
SM	61.953	30513324.	0.	931.127	0.			0.	
VΚ	0.235	115581.	٥.	3.527	٥.	10.625	241721.	0.	
MONTHL	Y SUMMARY (JUL	)							
MIN	0.000	102925.	0.			0.000	219251.	0.	
MX	4.490	137124.					329984.	0.	
SM	517.004	27377080.	0.			3225.994	5649/608.	0.	
AV	2.154	114071.	0.	3.527	0.	13.442	235407.	0.	

ENTECH ENGINEERING READING, PA 1980-RMCS STUDY FT. GEORGE G. MEADE PA 19603 PAGE 2- 2 H-1 -----AHU-3 AHU-3 AHU-3 AHU-4 AHU-3 AHU-2 AHU-2 TOT HTG COOLING HRATING COOLING COOLING TOT HTG SUPPLY COOLING ELECTRIC CAPACITY COIL PWR BLECTRIC CAPACITY CAPACITY COTT. PWR BLECTRIC BTU/HR KW BTU/HR BTU/HR KW BTU/HR BTTI/HR ---- (70) ---- (47) ---- (78) ---- (47) ---- (70) ----(5) ---- (49) MONTHLY SUMMARY (AUG) 3.527 219254. 0.000 5.650 0.000 102458. ٥. ο. MN 18.797 329168. ٥. ٥. 3.527 136956. ٥. MX 3505.275 64963236. 0. 973.451 0. 926.793 30656338. ٥. 3.527 ٥. 12.700 235374. ٥. 111074. ΑV 3.358 MONTHLY SUMMARY (SEP) 0.000 - '2Rb 3.527 ٥. ٥. 0.000 215361. ٥. 102427. MN 128805. 3.527 ٥. 17.432 349757. ٥. MX 2173.011 61972980. 28136698. ٥. 888.803 0. 676.874 SM 8.623 245925. ο. 3.527 ٥. ΑV 2.686 111654. MONTHLY SUMMARY (OCT) 3.527 0.000 -222322. 0.000 228423. -78745. -82529. 107301. 12.477 1441.933 3.527 0. 324055. ٥. 120454. MY 4.866 -29346506. 58819040. -2674319. -2862024. 27050626. 846.479 595.152 SM -122277. 6.008 245079. -11143. 3.527 -11925. ۸V 2.480 112711. MONTHLY SUMMARY (NOV) 0.000 -124775. 3.527 -222322. 0.000 234782. -121218. 112264. 0. -1709644. 0.000 331492. 0. 3.527 -222322. 133119. 0.000 MX -1589601. -53357284. 0.000 61868776. 846.479 0.000 27372160. -6623. -7124. 3.527 -222322. 0.000 257787. 114051. ΑV 0.000 MONTHLY SUMMARY (DEC) 0.000 -132934. -136976. 3.527 -222322. 0.000 234782. 112264. MN 0.000 323013. 114949. -14. -6832626. 3.527 -222322. 0.000 MX 0.000 61688268. -6589198 -56025148. 888.803 0.000 28298120. -222322. 0.000 244795. -26148. -27114. 112294. ΑV 0.000 YEARLY SUMMARY -155989. 213354. 0.000 5.730 100601. -161605. 3.527 -222322. 0.000 MN 19.105 472221.

3.527

3.527

10665.638

Ο.

14418.987

4.768

745243840.

246443.

-362829536.

-119983.

137124.

112774.

341029216.

MX

ΑV

2777.775

0.919

ο.

-29472674.

-9746.

RZDOR - ELITE SOFTWARE DEVELOPMENT INC

DOE-2.1D 6/ 7/1996 10: 3: 6 SDL RUN 1

-28333724.

-9370.

ENTECH ENGINEERING BZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/7/1996 10: 3: 6 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE ENCS STUDY

REA	DING, PA	19603	FT. GEORGE	G. MEADE		EMCS STUDY			
-1	- HC	OURLY-REPORT						PAGE	1-
моркн	AHU-4	AHU-4	AHU-4	AHU-4	AHU-5	AHU-5	AHU-5	AHU-5	
	SUPPLY	HEATING	COOLING	COOLING	TOT HTG	SUPPLY	HEATING	COOLING	
	ELECTRIC	CAPACITY	RLECTRIC	CAPACITY	COIL PWR	BLECTRIC	CAPACITY	ELECTRIC	
	KW	BTU/HR	KN.	BTU/HR	BTU/HR	KM	BTU/HR	KW	
	(49)	(78)	(47)	(70)	(5)	(49)	(78)	(47)	
MONTHLY	SUMMARY (JA								
MN	3.427	-216033.	0.000	228191.	-272975.	7.066	-445384.	0.000	
MX	3.427		0.000	457880.	-14.	7.066	-445384.	0.000	
SM	863.662		0.000	601 <b>899</b> 68.	-13383163.	1780.563	-112236760.	0.000	
AV	3.427	-216033.	0.000	238849.	-53108.	7.066	-445384.	0.000	
MONTHLY	SUMMARY (FE								
MN	3.427		0.000	228191.	-298075.	7.066	-445384.	0.000	
MX	3.427		0.000	309586.	-13.	7.066	-445384.	0.000	
SM	781.409	-49255608.	0.000	53760560.	-10164425.	1610.985	-101547544.	0.000	
AV	3.427	-216033.	0.000	235792.	-44581.	7.066	-445384.	0.000	
MONTHLY	SUMMARY (MA								
MIN	3.427		0.000	228191.	-255651.	7.066	-445384.	0.000	
MX	3.427		0.000	363062.	-5.	7.066	-445384.	0.000	
SM	945.916		0.000	66914280.	-3800789.	1950.140	-122925976.	0.000	
AV	3.427	-216033.	0.000	242443.	-13771.	7.066	-445384.	0.000	
MONTHLY	SUMMARY (AP								
MIN	3.427		0.000	227142.	-112012.	7.066	-445384.	0.000	
MX	3.427		0.000	354195.	0.	7.066	-445384.	0.000	
SM	863.662		0.000	64730596.	-262378.	1780.563	-112236760.	0.000	
VA	3.427	-216033.	0.000	256867.	-1041.	7.066	-445384.	0.000	
	SUMMARY (MA				_		٥.		
MN	3.427		0.000	209446.	0.	7.066	0.	0.000 26.795	
MX	3.427		12.793	346894.	0.	7.066	0.	2709,773	
SM	863.662		1228.734	60995752.	0.	1780.563	0.	10.753	
AV	3.427	0.	4.876	242047.	0.	7.066	0.	10.753	
	Y SUMMARY (JU	•		207736.	0.	7.066	٥.	0.000	
MN	3.427		0.000 18.326	308316.	0.	7.066	0.	37.740	
MX	3.427		2716.903	61964784.	0.	1865.352	0.	5697.487	
SM	904.789			234715.	0.	7.066	0.	21.581	
AV	3.427	0.	10.291	239/15.	0.	7.000	0.	21.301	
	Y SUMMARY (JU		0.000	213063.	0.	7.066	0.	0.000	
MN	3.427		18.547	320339.	0.	7.066	0.	38.054	
MX	3.427		3103.662	54960016.	0.	1695.774	0.	6396.543	
SM	822.535		12.932	229000.	0.	7.066	0.	26.652	
ΑV	3.427	u.	14.934	223000.	U.	,.566	٠.	-0.034	

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/7/1996 10: 3: 6 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY

REAL	DING, P.	A 19603	PT. GEORGE	G. MEADE		EMCS STUDY			
-1	- H	OURLY-REPORT						PAGE	2-
	AHU-4	AHU-4	AHU-4	AHU-4	AHU-5	AHU-5	AHU-S	AHU-5	
	SUPPLY	HEATING	COOLING	COOLING	TOT HTG	SUPPLY	HEATING	COOLING	
	BLECTRIC	CAPACITY	ELECTRIC	CAPACITY	COIL PWR	BLECTRIC	CAPACITY	BLECTRIC	
	KM	BTU/HR	KM	BTU/HR	BTU/HR	KW	BTU/HR	KM	
	(49)	(78)	(47)	(70)	(5)	(49)	(78)	(47)	
MONTHLY	SUMMARY (AU	G)							
MN	3.427	0.	0.000	213129.	٥.	7.066	0.	0.000	
MX	3.427	0.	18.287	319551.	0.		0.		
SM	945.916	0.	3428.831	63124724.	٥.		0.		
AV	3.427	0.	12.423	228713.	0.	7.066	0.	25.577	
MONTHLY	SUMMARY (SE						_		
MN	3.427			209413.	0.		0.		
MX	3.427		17.018	339507.	0.	7.066	0.	34.906	
SM	863.662	0.	2126.070	60250520.	0.	1780.563	0.		
AV	3.427	0.	8.437	239089.	٥.	7.066	0.	17.759	
MONTHLY	SUMMARY (OC								
MIN	3.427		0.000	221973.	-153414.	7.066	-445384.	0.000	
MX	3.427		12.290	314653.	0.	7.066	0.	25.557	
SM	822.535		1422.130	57174192.	-4757826.		-58790684.	3012.478	
AV	3.427	-118818.	5.926	238226.	-19824.	7.066	-244961.	12.552	
	SUMMARY (NO								
MN	3.427		0.000		-215596.		-445384. -445384.	0.000	
MX	3.427		0.000	321837.	0.	7.066		0.000	
SM	822.539		0.000	60127384.	-2082057.	1695.774	-106892152.		
AV	3.427	-216033.	0.000	250531.	-8675.	7.066	-445384.	0.000	
	SUMMARY (DE			222101	240000	7.066	445304	0.000	
MN	3.427		0.000	228191.	-249980. -13.	7.066		0.000	
MX	3.427		0.000	313469.					
SM	863.662		0.000	59932484.	-10302462.	1780.563 7.066		0.000	
AV	3.427	-216033.	0.000	237827.	-40883.	7.066	-445384.	0.000	
	SUMMARY			******	200075	2 000	445304	0.000	
MIN	3.42		0.000	207736.	-298075.	7.066 7.066	-445384.	0.000	
MX	3.42		18.547	457880.	0.		0.	38.054	
SM	10363.94		14026.331	724125184.	-44753096.	21366.754	-726866624.	29350.891	
AV	3.42	7 -116589.	4.638	239459.	-14799.	7.066	-240366.	9.706	

ENTECH ENGINEERING EZDOE - ELITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/7/1996 10: 3: 6 SDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY

REAL	DING, PA	19603	FT. GEORG	B G. MEADE		EMCS STUDY			
H-1	- HO	TRLY-REPORT							PAGE 1-
MMDDHH	AHU-5	AHU-6	AHU-6	AHU-6	AHU-6	AHU-6	AHU-7	AHU-7	
	COOLING	TOT HTG	SUPPLY	HEATING	COOLING	COOLING	TOT HTG	SUPPLY	
	CAPACITY	COIL PWR	BLECTRIC	CAPACITY	BLECTRIC	CAPACITY	COIL PWR	BLECTRIC	
	BTU/HR	BTU/HR	KM	BTU/HR	KW	BTU/HR	BTU/HR	KM	
	2.0,								
	(70)	(5)	(49)	(78)	(47)	(70)	(5)	(49)	
MONTHLY	SUMMARY (JAN	)							
MN	469216.	-313944.	8.087	-509750.	0.000	532162.	-460734.	9.184	
MX	942566.	-15.	8.087	-509750.	0.000	1067654.	-29291.	9.184	
SM	123923376.	-18100394.	2037.887	-128457008.	0.000	140421984.	-47300000.	2314.437	
AV	491759.	-71827.	8.087	-509750.	0.000	557230.	-187698.	9.184	
MONTHLY	SUMMARY (FEB	)							
MIN	469216.	-327433.	8.087	-5 <b>0975</b> 0.	0.000	532162.	-459293.	9.184	
MX	637039.	-13.	8.087	-509750.	0.000	722336.	-17.	9.184	
SM	110693800.	-13067940.	1843.803	-116223008.	0.000	125471680.	-36352504.	2094.015	
AV	485499.	-57316.	8.087	-509750.	0.000	550314.	-159441.	9.184	
MONTHLY	SUMMARY (MAR	)							
MIN	469216.	-285441.	8.087	-509750.	0.000	532162.	-394284.	9.184	
MX	751570.	-4.	8.087	-509750.	0.000	852080.	-11.	9.184	
SM	138121424.	-4957075.	2231.972	-140691024.	0.000	156470976.	-24779292.	2534.859	
VA	500440.	-17960.	8.087	-509750.	0.000	566924.	-89780.	9.184	
MONTHLY	SUMMARY (APR	)							
MIN	469216.	-124669.	8.087	-509750.	0.000	532162.	-312999.	9.184	
MIX	729638.	0.	8.087	-509750.	0.000	827019.	-2.	9.184	
SM	134384288.	-418442	2037.887	-128457008.	0.000	152324320.	-8312274.	2314.437	
AV	533271.	-1660.	8.087	-509750.	0.000	604462.	-32985.	9.184	
MONTHLY	SUMMARY (MAY								
MN	430671.	0.	8.087	0.	0.000	488446.	٥.	9.184	
MX	713385.	0.	8.087	0.	30.012	809214.	0.	9.184	
SM	124863320.	0.	2037.887	0.	2978.649	141940560.	0.	2314.437	
AV	495489.	0.	8.087	0.	11.820	563256.	٥.	9.184	
MONTHLY	SUMMARY (JUN								
MN	427603.	0.	8.087	0.	0.000	485151.	0.	9.184	
MX	629271.	0.	8.087	0.	42.490	718479.	0.	9.184	
SM	127157032.	٠. 0.	2134.929	0.	6441.441	144037008.	0.	2424.648	
AV	481655.	0.	8.087	0.	24.399	545595.	٥.	9.184	
MONTHLY	SUMMARY (JUL								
MIN	437695.	0.	8.087	0.	0.000	495218.	0.	9.184	
MIX	658691.	٥.	8.087	0.	43.272	746988.	0.	9.184	
SM	112947168.	0.	1940.845	0.	7226.698	127748760.	0.	2204.226	
VA	470613.	٥.	8.087	٥.	30.111	532287.	0.	9.184	

BHCS STUDY READING, PA 19603 HOURLY-REPORT FT. GEORGE G. MEADE PAGE 2- 4 AHU-7 AHU-6 AHU-6 AHU-7 AHU-5 AHU-6 AHU-6 AHU-6 TOT HTG SUPPLY HEATING COOLING COOLING TOT HTG SUPPLY COOLING COIL PWR ELECTRIC CAPACITY BLECTRIC CAPACITY COIL PWR RESCURIC CAPACITY BTU/HR BTU/HR TW. RTU/HR KW BTU/HR BTU/HR KW ----(5) ---- (49) ----(78) ---- (47) ---- (70) ----(5) ---- (49) ---- (70) MONTHLY SUMMARY (AUG) 9.184 8.087 ٥. 0.000 495290. 0. ٥. MN 437951. ٥. 8.087 ٥. 42.314 720032. 0. 9.184 MX 657104. 7958.378 146611568. 2534.859 2231.972 129665912. ٥. ٥. 0. ٥. 28.835 531201. 8.087 ٥. ΑV 469804. MONTHLY SUMMARY (SEP) 487567. 0.000 9.184 8.087 Ο. 0. 430387. 8.087 39.418 791452. ٥. 9.184 ٥. MX 698070. 2314.437 140218704. SM 123528632. ٥. 2037.887 α. 4859.461 ٥. 19.284 556423. 9.184 Ο. ΑV 490193. ٥. 8.087 MONTHLY SUMMARY (OCT) -184971. 8.087 -509750. 0.000 516699. -308563. 9.184 456339. 8.087 28.100 733406. 9.184 MX 621612. ٥. -67287008. -6267788. 1940.845 3294.399 133167840. -14385889. 2204.226 117088336. SM -59941. AV 487868. -26116. 8.087 -280363. 13.727 554866. 9.184 MONTHLY SUMMARY (NOV) -509750. 532162. -403274. 9.184 -260594. 0.000 469216. 8.087 8.087 -509750. 0.000 751491. 9.184 MX 665136. 0. -3606989. 140498288 -20603312 124223072. 1940.845 -122340008. 0.000 2204.226 SM 585410. -85847. 9.184 -509750. 0.000 A۷ 517596. -15029. 8.087 MONTHLY SUMMARY (DEC) -509750. 532162. -435288. 9.184 0.000 469216. -296485. 8.087 -509750. 0.000 731757. -7024. 8.087 MX 646121. -13. -14661766. 2037.887 -128457008. 0.000 139855616. -41806972. 2314.437 123450680. SM 554983. -165901. 9.184 -509750. 0.000 ΑV 489884. -58182. 8.087 YEARLY SUMMARY -327433. 8.087 -509750. 0.000 485151. -460734. 9.184 427603. 43.272 1067654. 9.184 8.087 0. MX 942566. -193540240. 27773.246 -61080392. -831912064. 32759.027 10.833 1490047104. 24454.646 1688767360. 558455. -64001. -275103.

EZDOE - ELITE SOFTMARE DEVELOPMENT INC

ENTECH ENGINEERING

ΔV

492740.

-20199.

8.087

DOE-2.1D 6/ 7/1996 10: 3: 6 SDL RUN 1

RRAI H-1	DING, PA = HOUR	19603 Ly-report	EZDOE - BLITE PT. GEORGE G.	SOFTWARE MEADE	DEVELOPMENT	Ð	HCS	DOE-2.1D STUDY			SDL PAGE	
MMODHH	AHU-7	AHU-7	AHU-7									
	HRATING	COOLING	COOLING									
	CAPACITY	BLECTRIC	CAPACITY									
		KW	BTU/HR									
	(78)	(47)	(70)									
MONTHLY	SUMMARY (JAN)											
MON	-578925.	0.000	588302.									
MX	-578925.	0.000	1237348.									
SM	-145889152.	0.000	156574624.									
AV	-578925.	0.000	621328.									
MONTHLY	SUMMARY (FEB)											
MN	-578925.	0.000	588302.									
MX	-578925.	0.000	824707.									
SM	-131994944.	0.000	139462736.									
AV	-578925.	0.000	611679.									
MONTHLY	SUMMARY (MAR)											
MN	-578925.	0.000	584304.									
MX	-578925.	0.000	964163.									
SM	-159783360.	0.000	172758736.									
AV	-578925.	0.000	625937.									
MONTHLY	SUMMARY (APR)											
MN	-578925.	0.000	582440.									
MX	-578925.	0.000	952212.									
SM	-145889152.	. 0.000	164964528.									
AV	-578925.	0.000	654621.									
MONTHLY	SUMMARY (MAY)											
MIN	0.	0.000	539975.									
MX	0.	29.368	930634.									
SM	0.	2326.293	158789184.									
AV	0.	9.231	630116.									
MONTHL	Y SUMMARY (JUN)											
MIN	0.	0.000	536675.									
MX	0.		813506.									
SM	0.		159849232.									
AV	0.	22.395	605490.									
MONTHL	Y SUMMARY (JUL)											
MN	0.	0.000	543558.									
MX	0.	46.067	846479.									
SM	0.	7085.115	141342864.									
AV	٥.	29.521	588929.									

REAJ H-1	DING, PA	ERING 19603 LY-REPORT	EZDOB - ELIT PT. GEORGE G	E SOFTWARE . MEADE	DEVELOPMENT	INC	BHCS	DOR-2.1D STUDY	6/	7/1996	10:	3:	6 SDI	
	AHU-7	AHU-7	AHU-7				****							 
	HEATING	COOLING	COOLING											
	CAPACITY	BLECTRIC	CAPACITY											
	BTU/HR	KM	BTU/HR											
	(78)	(47)	(70)											
MONTHLY	SUMMARY (AUG)													
MIN	٥.	0.000	544186.											
MX	0.	45.296	816252.											
SM	0.	7643.803	162200000.											
AV	0.	27.695	587681.											
MONTHLY	SUMMARY (SEP)													
MN	0.	0.000	538175.											
MDX	0.	42.876	902130.											
SM	0.	4482.968	156080048.											
AV	0.	17.790	619365.											
MONTHLY	SUMMARY (OCT)													
MN	-578925.	0.000	571293.											
MOX	0.	25.804	831529.											
SM	-76418112.	2849.745	147876320.											
AV	-318409.	11.874	616151.											
MONTHLY	SUMMARY (NOV)													
MN	-578925.	0.000	588302.											
MX	-578925.	0.000	850172.											
SM	-138942048.	- 0.000	154956208.											
AV	-578925.	0.000	645651.											
MONTHLY	SUMMARY (DEC)													
MIN	-578925.	0.000	588302.											
MX	-578925.	0.000	835016.											
SM	-145889152.	0.000	155655952.											
AV	-578925.	0.000	617682.											
YEARLY	SUMMARY													
MIN	-578925.	0.000	536675.											
MX	0.	46.067	1237348.											
SM	-944805888.	30300.191	1870510336.											
VA	-312436.	10.020	618555.											

ENTECH ENGINEERING EZDOB - ELITE SOFTWARE DEVELOPMENT INC DOB-2.1D 6/ 7/1996 10: 3: 6 FDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE ENCS STUDY
REPORT- PV-A EQUIPMENT SIZES WEATHER FILE- BALTIMORE, MD

NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER
EQUIPMENT SIZE INSTD SIZE INSTD SIZE INSTD SIZE INSTD SIZE INSTD SIZE INSTD (MBTU/H) AVAIL 
HW-BOILER 2.500 2 2

ENTECH ENGINEERING BZDOB - ELITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 PT. GEORGE G. MEADE BMCS STUDY
REPORT- PS-A PLANT ENERGY UTILIZATION SUMMARY WEATHER FILE- BALTIMORE, MD

					s:	ITE E	NERGY	r.				•	SOURCE
	2	3	4	5	6	7	8	9	10	11	12	13	14
MONTH	TOTAL HEAT LOAD	TOTAL COOLING LOAD	TOTAL BLECTR LOAD	RCVRED ENERGY	WASTED RCVRABL ENERGY	FUEL INPUT COOLING	BLEC INPUT COOLING	FUBL INPUT HEATING	BLEC INPUT HEATING	FUEL INPUT BLECT	TOTAL FUEL INPUT	TOTAL SITE ENERGY	SOURCE ENERGY
JAN	224.6	0.0	267.8 78.48	0.0	0.0	0.0	0.0 0.0E	349.0	28.9 8.5B	0.0	349.0	616.7	1153.0
PEB	192.2	0.0	240.6 70.5B	0.0	0.0	0.0	0.0 0.0E	296.7	25.0 7.3B	0.0	296.7	537.3	1019.1
MAR	130.6	0.0	274.4 80.4E	0.0	0.0	0.0	0.0 0.0B	207.8	23.1 6.8E	0.0	207.8	482.2	1031.9
APR	83.0	0.0	251.5 73.68	0.0	0.0	0.0	0.0 0.0B	134.9	19.4 5.7B	0.0	134.9	386.4	890.1
MAY	0.0	0.0	301.7 88.4E	0.0	0.0	0.0	0.0 0.0B	0.0	0.0 0.0B	0.0	0.0	301.7	906.1
JUN	0.0	0.0	346.7 101.5B	0.0	0.0	0.0	0.0 0.08	0.0	0.0 0.0B	0.0	0.0	346.7	1041.2
JUL	0.0	0.0	357.0 104.6B	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0B	0.0	0.0	357.0	1072.2
AUG	0.0	0.0	381.0 111.6E	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0B	0.0	0.0	381.0	1144.1
SEP	0.0	0.0	324.2 95.08	0.0	0.0	0.0	0.0 0.0E	0.0	0.0 0.0B	0.0	0.0	324.2	
oct	58.4	0.0	300.9 88.1E	0.0	0.0	0.0	0.0B	94.7	11.5 3.48	0.0	94.7	395.6	998.3
NOV	86.1	0.0	242.9 71.18	0.0	0.0	0.0	0.0 0.0E	138.4	19.4 5.78	0.0	138.4	381.3	867.8
DEC	178.4	0.0	262.9 77.08	0.0	0.0	0.0	0.0 0.0E	280.1	26.1 7.7B	0.0	280.1	543.0	1069.6
	953.3	0.0	3551.6 1040.2B	0.0	0.0	0.0	0.0 0.0B	1501.6	153.4 44.9E	0.0	1501.6	5053.2	12167.1

NOTE-- ALL ENTRIES ARE IN MBTU EXCEPT ENTRIES POLLOWED BY E ARE IN MMH (THOUSANDS OF KWH)

MO	UTILITY-	BLECTRICITY	NATURAL-GAS
	TOTAL (MBTU)	267.762	348.961
Jan	PEAK (KBTU)	1007.105	2160.860
	DY/HR	31/15	16/ 7
	TOTAL (MBTU)	240.563	296.711
FEB	PEAK (KBTU)	1007.105	2213.450
	DY/HR	22/ 9	13/ 7
	TOTAL (MBTU)	274.441	207.787
Mar	PEAK (KBTU)	1007.105	1950.657
	DY/HR	16/ 8	7/7
	TOTAL (MBTU)	251.455	134.935
APR	PEAK (KBTU)	990.234	1377.561
	DY/HR	11/ 8	10/7
	TOTAL (MBTU)	301.729	0.000
MAY	PEAK (KBTU)	1310.997	0.000
	DY/HR	20/16	31/ 1
	TOTAL (MBTU)	346.728	0.000
JUN	PRAK (KBTU)	1509.353	0.000
	DY/HR	10/16	30/1
	TOTAL (MBTU)	357.034	0.000
ω	PEAK (KBTU)	1519.049	0.000
	- DY/HR	25/16	31/ 1
	TOTAL (MBTU)	380.987	0.000
AUG	PRAK (KBTU)	1527.671	0.000
	DY/HR	18/16	31/ 1
	TOTAL (MBTU)	324.242	0.000
SEP	PEAK (KBTU)	1492.039	0.000
	DY/HR	1/16	30/ 1
	TOTAL (MBTU)	300.897	94.716
OCI.	PEAK (KETU)	1318.867	1380.046
	DY/HR	18/16	24/ 7
	TOTAL (MBTU)	242.901	138.369
NOV	PEAK (KBTU)	1007.105	1775.396
	DY/HR	28/ 8	25/ 7
	TOTAL (MBTU)	262.887	280.109
DEC	PRAK (KBTU)	1007.105	1911.371
	DY/HR	27/ 9	12/ 7
	ONE YEAR	3551.624	1501.588
	USB/PEAK	1527.671	2213.450

ENTECH ENGINEERING EZDOE - BLITE SOFTWARE DEVELOPMENT INC DOE-2.1D 6/7/1996 10: 3: 6 PDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-D PLANT LOADS SATISFIED MEATHER FILE- BALTIMORE, MD

HEATING LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
HW-BOILER	953.3	100.0
	***********	
LOAD SATISFIED TOTAL LOAD ON PLANT	953.3 953.3	100.0
ELECTRICAL LOADS	MBTU SUPPLIED	PCT OF TOTAL LOAD
BLECTRICITY	3551.6	100.0
LOAD SATISFIED TOTAL LOAD ON PLANT	3551.6 3551.7	100.0

SUMMARY OF LOADS MET

TYPE OF LOAD	TOTAL LOAD (MBTU)	LOAD SATISFIED (MBTU)	TOTAL OVERLOAD (MBTU)	PEAK OVERLOAD (MBTU)	HOURS OVERLOADED
HEATING LOADS	953.3	953.3	0.000	0.000	0
ELECTRICAL LOADS	3551.7	3551.6	0.000	0.000	

ENTECH ENGINEERING EZDOB - ELITE SOFTMARE DEVELOPMENT INC DOB-2.1D 6/7/1996 10: 3: 6 PDL RUN 1
READING, PA 19603 PT. GEORGE G. MEADE EMCS STUDY
REPORT- PS-H EQUIPMENT USE STATISTICS WEATHER PILE- BALTIMORE, MD

BQUIPMENT	AVG OPER RATIO	MAX LOAD (MBTU)	MON DAY HR	SIZE OPER (MBTU) HRS				
							******	
WW_BOTT.EP	0.081	1.657	2 13 7	2.500 4728				

EMTECH ENGINEERING EZDOE - ELITE SOFTMARE DEVELOPMENT INC DOE-2.1D 6/7/1996 10: 3: 6 FDL RUN 1
READING, PA 19603 FT. GEORGE G. MEADE ENCS STUDY
REPORT- PS-I EQUIPMENT LIFE CYCLE COSTS WEATHER FILE- BALTIMORE, MD

EQUIPMENT TOTALS

HW-BOILER				140.6		
	NOMINAL	SIZE	(MBTU)			2.500
	NUMBER I					2
	FIRST	COST	(K\$)		131.1	131.1
	ANNUAL	COST	(K\$)		4.2	4.2
	CYCLICAL	COST	(K\$)		5.4	5.4
	TOT	AL	- (K\$)			140.6
BQUI	PMENT TOT	'AL		140.6		

ENTECH ENGINEERING BZDOB - ELITE SOFTWARE DEVELOPMENT INC
READING, PA 19603 FT. GEORGE G. MRADE
REPORT- BEPS ESTIMATED BUILDING ENERGY PERFORMANCE

MEATHER FILE- BALTIMORE, MD

ENERGY TYPE IN SITE MBTU -	BLBCTRICITY	NATURAL-GAS
CATEGORY OF USE		
SPACE HEAT	73.05	1501.58
SPACE COOL	520.82	0.00
HVAC AUX	583.62	0.00
DOM HOT WTR	0.00	0.00
AUX SOLAR	0.00	0.00
LIGHTS	1721.74	0.00
VERT TRANS	0.00	0.00
MISC BOULP	652.34	0.00
TOTAL	3551.56	1501.58

TOTAL SITE ENERGY 5053.21 METU 58.3 KETU/SQFT-YR GROSS-AREA 58.3 KETU/SQFT-YR NET-AREA TOTAL SOURCE ENERGY 12167.13 METU 140.5 KETU/SQFT-YR GROSS-AREA 140.5 KETU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 43.3
PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.0

NOTE ELECTRICITY AND/OR FUEL USED TO GENERATE ELECTRICITY IS APPORTIONED BASED ON THE YEARLY DEMAND. ALL OTHER ENERGY TYPES ARE APPORTIONED HOURLY.

HOURLY DATA FILE 2FROM PROG 3

ED1.V-1	ENTECH ENGINE DING, PA HOUR	19603 LY-REPORT	EZDOB - ELITE FT. GEORGE G.	MEADE		EMCS	STUDY		10:	3:	6 PD:		
	HW-BOILE	HW-BOILE	HW-BOILE		 			 					
MMODHH	R R	R R	R										
	LOAD	RLECTRIC	FUEL										
	LOAD	USE	USE										
			BTU/HR										
	BTU/HR	BIU/ RK	BIU/ AIK										
	( 1)	(3)	( 4)										
MONTHLY	SUMMARY (JAN)												
MIN	34703.	3054.	56709.										
MX	1609654.		2160860.										
SM	224637792.	16283064.											
AV	301933.	21886.	469034.										
	SUMMARY (FEB)												
		3054.	56709.										
MIN	34703. 1656762.	55000.	2213450.										
MX		13581517.	296712192.										
SM	192197264. 286008.	20211.	441536.										
AV	286008.	20211.	112330.										
	SUMMARY (MAR)												
104	34703.	3054.	56709.										
MX	1422910.	55000.	1950657.										
SM		10414490.	207787408.										
AV	175499.	13998.	279284.										
MONTHLY	SUMMARY (APR)												
MN	34703.	3054.	56709.										
MX	925758.												
SM	83030616.	7158772.	134934752.										
VA	115320.	9943.	187409.										
MONTHLY	SUMMARY (MAY)												
MN	0.	0.	0.										
MIX	0.		0.										
SM	0.		0.										
AV	٥.	٥.	0.									•	
MONTHLY	SUMMARY (JUN)												
MIN	0.	0.	0.										
MX	0.	٥.	0.										
SM	0.		0.										
AV	. 0.	0.	0.										
MONTHLY	Y SUMMARY (JUL)												
MN	0.	0.	0.										
MX	٥.	0.	0.										
SM	٥.	0.	0.										
AV	0.	0.	0.										
	• •												

	DING, PA	19603	EZDOE - ELIT PT. GEORGE G	SOFTWARE MEADE	DEVELOPMEN	T INC	EMCS		DOE-2.1D STUDY	DOE-2.1D 6/ STUDY	DOE-2.1D 6/ 7/1996 STUDY	DOE-2.1D 6/ 7/1996 10: STUDY	DOR-2.1D 6/ 7/1996 10: 3: STUDY	STUDY	DOE-2.1D 6/ 7/1996 10: 3: 6 PDL RI STUDY PAGE 2:
DRLY-1		LY-REPORT						• •							
	HW-BOILE	HW-BOILE	HW-BOILE												
	R	R	R.												
	LOAD	BLECTRIC	FUEL												
		USE	USE												
	BTU/HR	BTU/HR	BTU/HR												
	( 1)	( 3)	( 4)												
MONTHLY	SUMMARY (AUG)														
MIN	0.	0.	0.												
MX	0.	0.	0.												
SM	٥.	0.	0.												
AV	0.	0.	0.												
MONTHLY	SUMMARY (SEP)														
MN	0.	0.	0.												
MX	0.	0.	0.												
SM	0.	0.	0.												
VA	٥.	0.	0.												
MONTHLY	SUMMARY (OCT)														
MON	0.	0.	0.												
MX	927877.	55000.													
SM	58383820.	5001064.	94715376.												
AV	78473.	6722.	127306.												
MONTHLY	SUMMARY (NOV)														
MN	34703.	3054.	56709.												
MX	1269055. 86076264.	55000.	1775396.												
SM	86076264.	7125462.	138369072.												
AV	119550.	9896.	192179.												
MONTHLY	SUMMARY (DEC)														
MN	34703.		56709.												
MX	1388278.	55000.	1911371.												
SM	178397280.	13486727.	280109632.												
AV	239781.	18127.	376491.												
YEARLY	SUMMARY														
MON	0. 1656762.	0.	0. 2213450.												
MX	1656762.														
SM	953294592.		1501590016.												
AV	108824.	8339.	171414.												

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